

MANUFACTURERS' RECORD

A Weekly Southern Industrial and Hardware Newspaper.

Vol. XII. No. 11.
WEEKLY.

BALTIMORE, OCTOBER 22, 1887.

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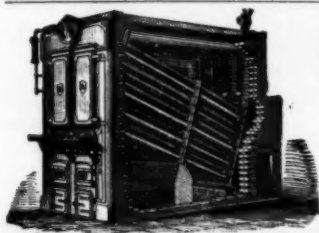
FACTS ABOUT THE NEW YORK AQUEDUCT TUNNEL.

When work began on the NEW CROTON AQUEDUCT, INGERSOLL "STRAIGHT LINE" AIR COMPRESSORS AND INGERSOLL DRILLS were adopted on about one-half the line. As the work progressed, the Engineer's Tables showed that the progress on the sections using INGERSOLL MACHINERY AVERAGED HIGHER THAN ALL OTHERS. This induced contractors on the other sections to put in INGERSOLL MACHINERY. Section "A," under Rodgers & Farrell, the first section north of Harlem River, was run for nearly a year with other machinery. In August, 1886, one-half the section was equipped with INGERSOLL DRILLS, which were so satisfactory that ALL OTHER DRILLS were thrown out, and the section was completed February 2d, 1887, WITH INGERSOLL DRILLS EXCLUSIVELY. During the ten months prior to completion, THE MONTHLY RECORDS AVERAGED 218 FEET, 83 FEET in one week, and 265 FEET, 6 INCHES MADE IN 26 DAYS, ALL FULL SECTION TUNNEL, 16x16 FEET. THIS IS THE BEST RECORD MADE IN FULL SECTION TUNNEL ON THE LINE. NATURE OF ROCK HARD GRANITE GNEISS.

INGERSOLL DRILLS HAVE COMPETED IN NO PRIZE COMPETITIONS ON THE AQUEDUCT. Ingessoll Drills are now driving four-fifths of the aqueduct, and are used in the following shafts: Smith & Brown, Croton Dam Section, Ingessoll Drills and Air Compressors exclusively. Brown, Howard & Co., Shaft Zero to 11 B, Ingessoll Drills and Air Compressors exclusively (175 Drills, 19 Air Compressors). Shafts 12 A and 12 B, McLaughlin & Reilly, 14 Ingessoll Drills. Shaft 14, 2 Ingessoll Drills. Shaft 18, 5 Ingessoll Drills. Shaft 18 1/2, 2 Ingessoll Drills. Shaft 19, 6 Ingessoll Drills. Shafts 20 and 21, 9 Ingessoll Drills. Shafts 22 and 24 inclusive, Rodgers & Farrell, all Ingessoll Drills, 30 in number. Harlem River Section, Peterson & Co., Ingessoll Drills and Air Compressors exclusively. Shafts 27 and 32, 14 Ingessoll Drills and 1 Air Compressor. Terminal Gate-House at 135th Street, Ingessoll Drills exclusively.

SEND FOR DESCRIPTION OF AQUEDUCT WITH ENGINEERS' TABLES OF PROGRESS AND CATALOGUE.

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ROOT'S NEW WATER TUBE STEAM BOILER,

Safe, Economical, Durable.

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JOHN S. MOORE, 169 Gravier Street, New Orleans, La.
T. B. PACKER, Shidley Building, Kansas City, Mo.
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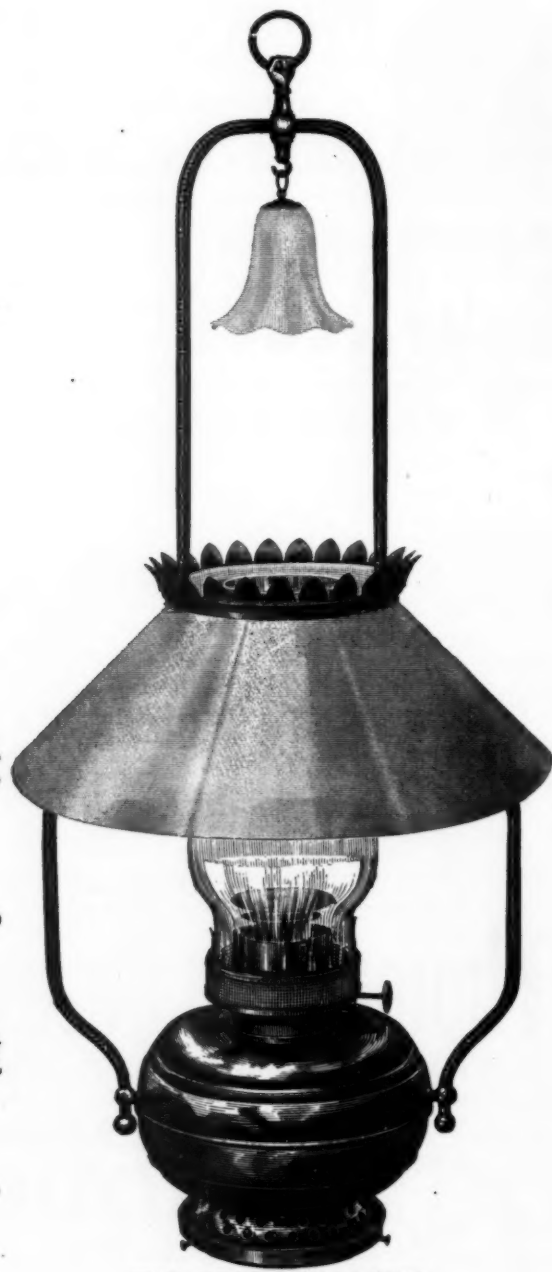
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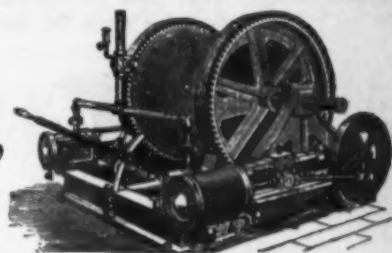
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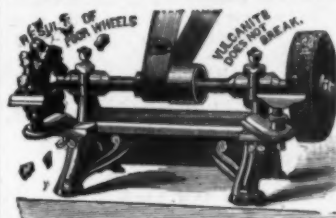
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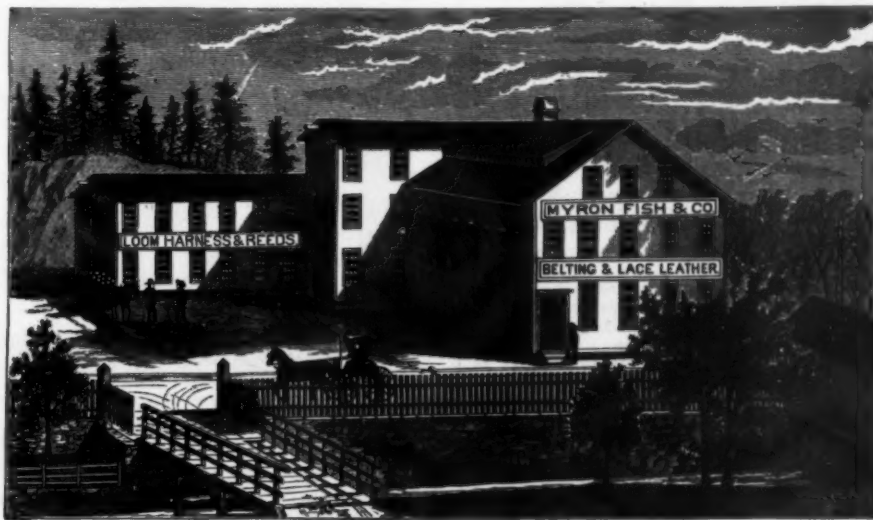
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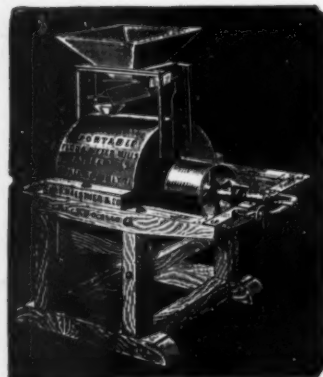
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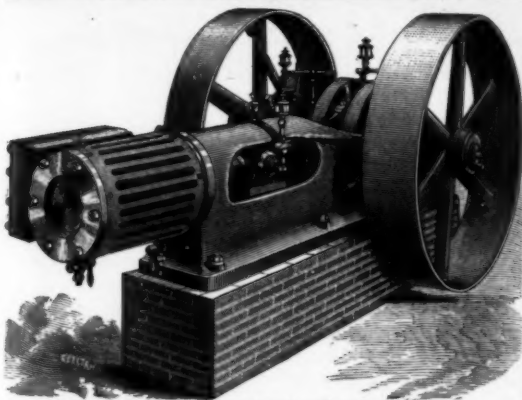
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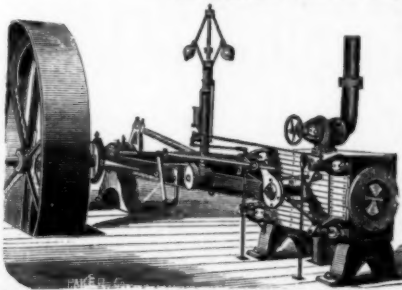
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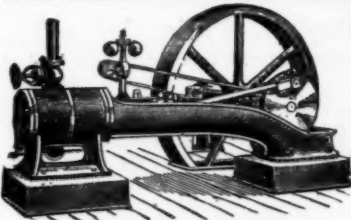
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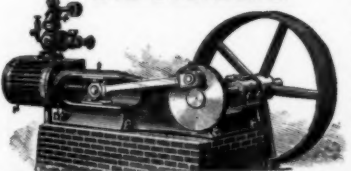
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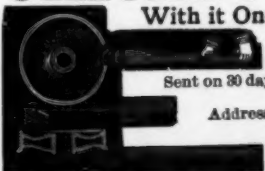
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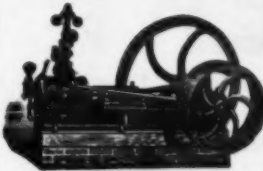
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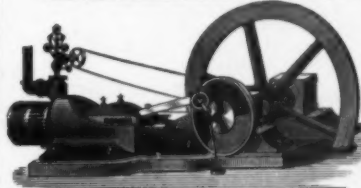
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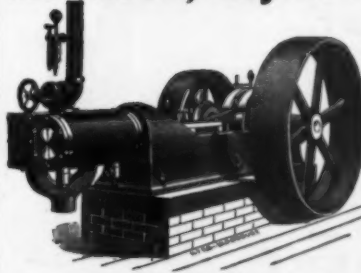
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Economy in Fuel Consumption,
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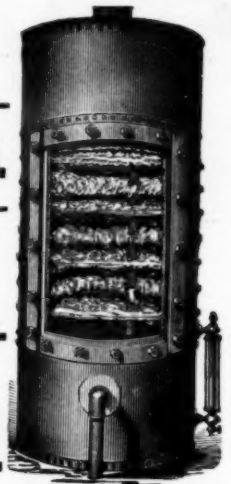
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Removing all impurities from the water before it enters the boiler.

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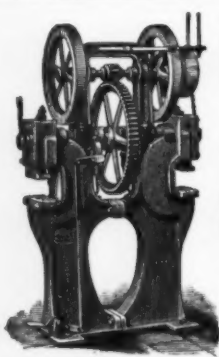


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- One 6 horse-power Baxter.
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Progress Engine & Machine Works,
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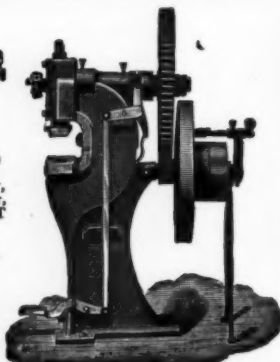
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PUNCHES and SHEARS,
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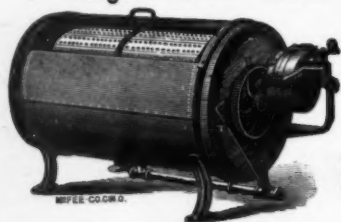


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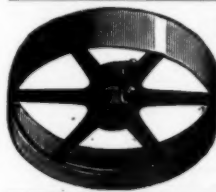
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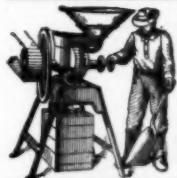
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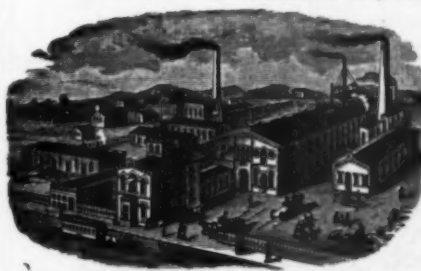
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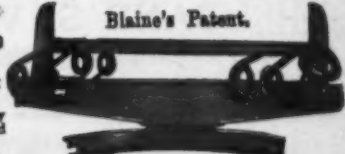
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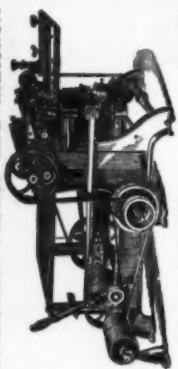
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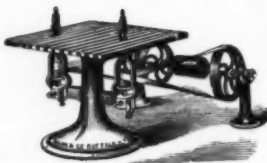
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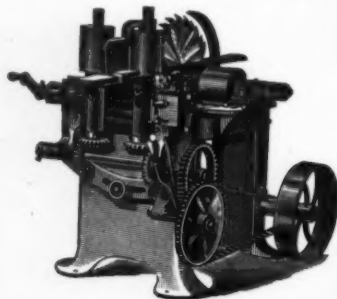
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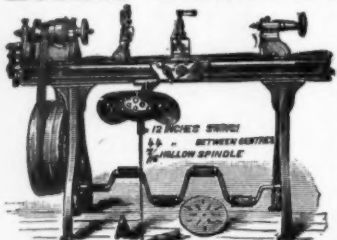
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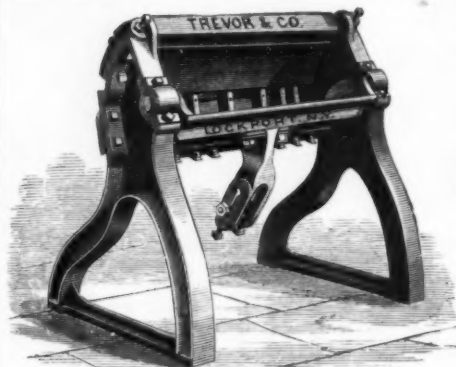
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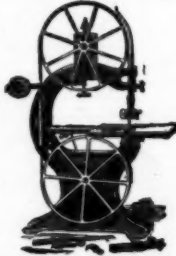
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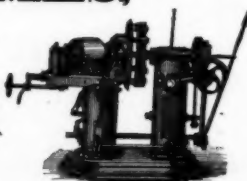
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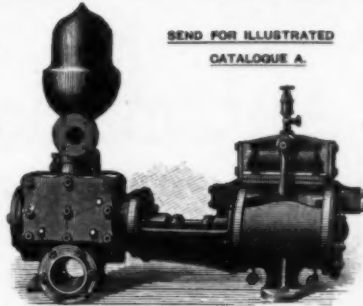


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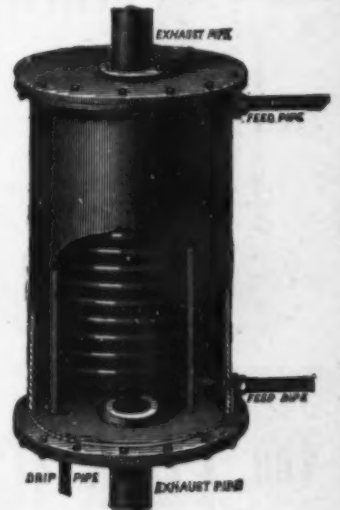
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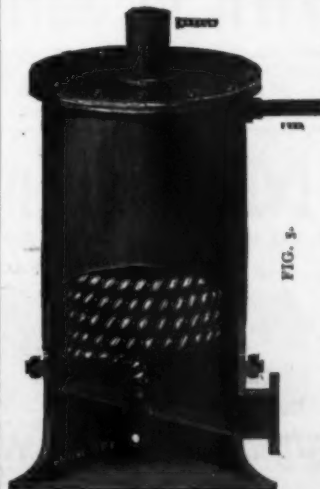
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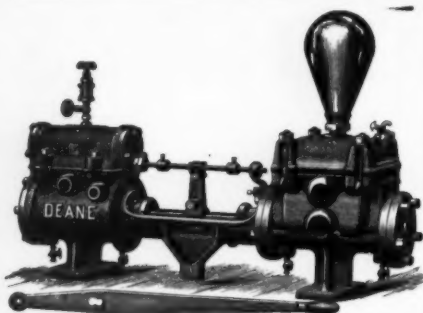
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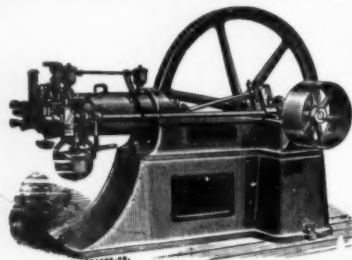
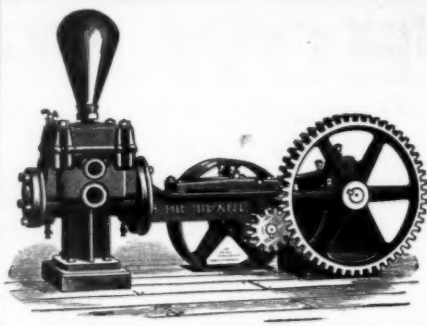
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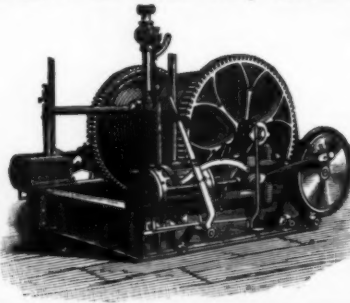
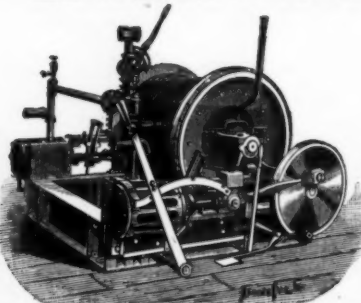
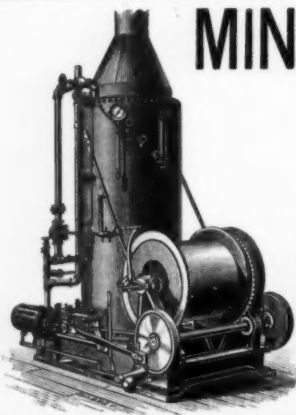
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Stout Hearts and Sturdy Hands Needed.

Letters from Southern young men soliciting advice are frequently received by the MANUFACTURERS' RECORD. As a rule they are of the same purport, but the following is rather unique: "I am three and twenty, have good health, a college education and am not afraid of work. In fact I earned the means to pursue my studies to their conclusion. Now I am ready for my life work, if I could but find out what it is to be. I am not cut out for a profession, nor to be a salesman. There is enough brawn and muscle left after four years of hard intellectual and manual labor to make me a useful assistant in any occupation where they would be called into play, and my intelligence ought to give them superior value. What field is open for one like me?" We fancy this writer represents a considerable number of Southern men. He is ready and willing to do the work for which his intelligence and physical strength fit him, but he evidently supposes that the one thing essential is to seek until he finds just that place in the business machinery of this work-a-day age into which he would fit. This is a mistake. We are all cogs in the great machine. Some of us drop into the right place at once, while others must be shifted and transferred from one position to another until the right spot is found. Of one thing our young friend may feel sure, that there is a place awaiting him somewhere, into which he will fit nicely, but that it is useless to go in search of it. Instead, let him go to work at the first honest manly thing that presents itself, even if it does not exactly please and satisfy him, and then do his best. It is the first step toward the accomplishment of his purposes. Let us give an example replete with interest. During the late war Major E. A. Burke, the brilliant and energetic chief of the New Orleans Times-Democrat which paper he established on its present broad foundations, was at the head of an extensive confederate establishment in Texas, where wagon, harness and repair shops were kept continually busy in supplying those things to the armies. After the war he remained in Texas and engaged in business, but owing

to the unsettled condition of that period he met with reverses and losing nearly all he had, he went to New Orleans to secure employment. Day after day he returned to his cheap lodgings unsuccessful, and one morning he found himself with only money enough for that day's subsistence. His affairs looked desperate, but with unabated pluck he renewed his quest for work. Passing a stone cutter's yard where a number of men were employed, he walked into the office, found the proprietor and asked for something to do. The latter was surprised at such a request from a man of his appearance, and jeeringly said: "A man that wears such clothes as you do cannot do my work." Major Burke stripped off coat and vest rolled up his shirt sleeves and again accosting the proprietor, said: "If my clothes are the only objection that is easily disposed of." Amused at his action, but mistrusting probably a joke at his expense, he told the major to follow him to the yard. Among the workmen was a burly negro, who, with an assistant, was sawing a block of stone. "If you really mean business," said he, "you may take this fellow's job." "All right," said the volunteer employe, and at it he went with a will. For several days he worked steadily in this subordinate position, after which the boss, who had watched him curiously, advanced his position and pay, and in a short time he was foreman of the yard, then manager of the business, and before the year was out he had organized a company, bought out the proprietor and was the head and part owner of a profitable business. That was the beginning after the war of the career of a man whose influence is felt in every Gulf State and in all the Mississippi valley, and who has done and is doing more probably to promote profitable commercial relations between the central American republics and the United States than any other man whether statesman public official or private citizen.

This narrative points its own moral. If every young man, situated as our correspondent claims to be, will, like Major Burke, seize upon the first real opportunity that offers, not allowing its disagreeables to affect him, he can and will make that the entering wedge with which to break down all barriers to success. In a recent address, Senator Evarts of New York said: "We are inventing no nostrum for any of the ills of human life, nor can we usurp by our constitution and our institutions the sovereign providence of God; but we do faithfully undertake to preserve absolute freedom in the efforts of every one to lift themselves higher and higher in the comforts of life, in the dignities of life, and in the honors of life and in the great names and fames that belong to the lustre and the history of this country. And you will find if you go through the long list of Americans who have thus prospered and and honored, you will find if you will

trace them to the roots that the man or the father had nothing but a stout heart, an honest conscience and sturdy hands. Now providence never did any more for a man than that."

The MANUFACTURERS' RECORD commends to its correspondent and to all other young Americans the sentiments thus eloquently expressed. "A stout heart, an honest conscience and sturdy hands" will make their opportunity and then win their way.

Which Shall It Be?

Before 1861 the manufacturing industries of the South were so few that they attracted no attention. A dozen wagon and buggy factories, somewhat more than that number of cotton mills, a forge here, a small charcoal furnace there, an occasional ship-yard, flour mills, machine shops and foundries at Richmond, woolen mills at several points, turpentine stills, sugar houses, tobacco factories, cooper shops and saw mills; these comprised the bulk of the manufacturing industries south of the Ohio and Potomac rivers. It was a halcyon period for agriculture, if our free trade friends' theories are true. Would it not be well in the interests of agriculture to wipe out "the war taxes," as they delight to term them, and replace them with those duties on imports that were in force between 1845 and 1860? Practically this is the thing that Messrs. Carlisle and Morrison, the Charleston News and Courier, the Wilmington Star and many other statesmen and newspapers of influence at the South are endeavoring to induce its people to consent to. In this endeavor they are heartily supported by importers and resident agents of foreign manufacturers, by college professors who know far more about dead languages than about the living realities that surround them, and by that numerous but steadily diminishing class of fossils, who for 20 years or more have been abjectly wringing their hands and maundering about "the good old days," while the live men and earnest youth of the nation have been working with their might, and giving prosperity to the country. All these people fail to see that American agriculture must depend mainly upon a home market for its principal support, and that, when all other industries are thriving, this will receive the greater benefit. Modern history abounds with instructive examples of this truth. France has been for several generations, and through all her wars and revolutions, a protected nation. It was not solely the buoyant spirit of her people that enabled her to rise from the chaos, into which she has been plunged so frequently during the past hundred years, but the rather it was their indomitable determination to acquire and maintain perfection in manufactures of every kind, suited to their climate and natural materials. This is strikingly illustrated in Mr. Robert P.

Perkin's instructive pamphlet, "Free Trade Folly," (page 84) by the following comparison and statistics:

"In 1812 by four branches, the cotton, linen, woolen and leather, Great Britain gained a clear profit of \$315,000,000 (see Colquhoun, "Wealth, Power and Resources of Great Britain," page 91). At that time, according to Mulhall (see "Progress of Nations," page 245), the manufacturing industry of France did not, in its entirety, amount to more than \$30,000,000, of which silk stood for one-half. According to the same authority, it now exceeds \$2,080,000,000, classified as follows:

	Operatives.	Products.
Textile factories.....	770,000	\$ 685,000,000
Flour mills.....	180,000	400,000,000
Clothing.....	150,000	800,000,000
Shoes and leather.....	300,000	180,000,000
Soap, candles, etc.....	100,000	150,000,000
Sugar and liquors.....	70,000	130,000,000
Furniture, jewelry, etc.....	90,000	100,000,000
Metals and minerals.....	350,000	180,000,000
Total.....	1,930,000	\$2,080,000,000

Textile fabrics, which now employ about 3,000 steam engines, 10,000,000 spindles and nearly 800,000 operatives in France, have almost trebled since England abolished custom-house duties in 1842, the total product of France then being \$275,000,000 against about \$700,000,000 at the present time."

So much for France under protection. But what has been occurring in free trade England during the same period? That country has a "Royal Commission, appointed to inquire into the depression of trade and industry." What? Depression in trade and industry in the world's greatest free-trade nation? Even so. The commission was necessary to find out what the trouble was. It inquired in all the manufacturing places of the United Kingdom, and they replied with one accord, "foreign tariffs on the one hand and free imports on the other." But how fares the British farmer under that system, which Professor Sumner and other collegiate instructors delight in proclaiming as the gospel of political economy? Surely the British agriculturist must be happy and prosperous? Alas! No. Quite the contrary. Since this month opened a committee appointed by that class waited upon a distinguished officer of the crown and explained their sufferings, losses and hardships. Then they asked could he suggest any mode of relief. No. He "was very sorry, you know, but really now" he could not. And England is losing by every ship that leaves her shores some of those sturdy yeomen, who, in all her history, have been the bulwark of the crown. Not even the farmer benefited by free trade! Alas for the theories of the free traders!

We need not contrast the South of to-day with its former self. The pages of the MANUFACTURERS' RECORD teem every week with the wonderful story of its growing prosperity, while the cheerful gatherings of planters and farmers at agricultural fairs and grange encampments; the freight trains laden with farm, vineyard and orchard products; the generally

buoyant tone of the Southern press, and scores of other signs, are but so many evidences that protection is blessing the South and putting it forward with almost miraculous speed to the very front of manufacturing, combined with agricultural prosperity. Messrs. Carlisle and company, witnessing this, the grandest industrial development of the nineteenth century, are frightened at its momentum. They call for a halt, for a change of policy, for a return to the system that prevailed before 1861, and that caused the commercial and industrial revolution of 1857. Then, says Mr. Porter, in his "Free Trade Folly," "gold had been driven out of the country, industries had been ruined, importations had become excessive, and eleven years of approximate free trade brought upon us universal financial ruin."

In the foregoing we have presented both sides of the controversy, with one or the other of which the South is invited and expected to array itself. Which shall it be?

That Illegal Cotton Tax.

The highest judicial court in the land has declared that the cotton tax levied and collected during and immediately after the war, was illegal. There are therefore in the United States treasury seventy-five millions of dollars, more or less, that do not belong there. The nation no longer owns that great treasure. It can only hold it in custody as trustee for those from whom it was taken and to whom it by right belongs. It will be the duty of Congress to provide for its restitution. But to whom does it belong? That is a question that may have as many answers as the ancient one, "who struck Billy Patterson." We see that some of our exchanges are beginning to canvas this matter, and we are pleased to note that they favor its being handed over to the cotton States to be used for educational purposes. Such an application of these millions would be in the highest sense wise and timely. The South needs and must have financial assistance from without to overcome the ever rising tide of illiteracy within its borders. The several States of that section are doing all in their power, but (as said the Louisiana Educational Society in its memorial to Congress in March, 1884,) "the illiterate are such a large proportion of the population, and poverty is so widespread, that the taxable property cannot bear such a burden as must necessarily be imposed to provide for and sustain public schools." Granting therefore the need, the questions arise: first, can Congress give this money to the States from some of whose people it

was taken; second, can Congress legislate as to the disposition that those several States shall make of the money they receive.

To these queries there can be but one reply. The money must go to those States from whose people it was collected, but must go to them untrammelled by any conditions. It belongs by right to many of their citizens, but as it is absolutely impossible to determine who those citizens are, it must be paid in bulk to the commonwealths, and its final disposition be left to their respective legislatures. To refuse to do the first would be a stigma upon the good name of the nation. To attempt to dictate how the money thus paid over to the States should be expended by them would be quite as unconstitutional as was the act of Congress under the powers of which the tax was collected.

The MANUFACTURERS' RECORD has recently obtained from some of the most prominent cotton commission merchants of the country their opinions on this subject, and rejoices to know that it has their cordial and unanimous concurrence with the views herein expressed. They, and every prominent Southern man to whom the subject has been presented, agree that among the people of the cotton States there would be but one opinion as to the use to which these millions should be applied. "No legislature would dare," said one gentleman, whose extensive business covers every cotton State, "to apply this money to any other than educational purposes. Coming at this time, and in the way it does, it would be esteemed a providential gift to help us solve the most difficult problem we have to encounter."

The question, how to get rid of the dangers of our great and increasing surplus in the treasury? is one occasioning profound anxiety among statesmen and financiers. This decision of the Supreme Court throws open a door of relief that Congress may use without question or hesitation. By voting to return to the States from whose citizens it was collected this vast sum of money, it will relieve itself of an embarrassing question, and the country from what many believe to be a grave dilemma. All sorts of schemes have been promulgated for reducing the treasury surplus, too many of them barely concealing the jobs they embody. But to this proposition there can be no valid objection. Justice demands that the cotton tax should be returned. The Southern people, from whom it

was taken unconstitutionally, need it for their educational systems. The treasury needs to be relieved of the burden. The business of the entire country will be benefited to that extent by the distribution of that vast sum in the South. Let Congress be just, and immediately after it convenes pass a simple bill to enable the United States treasurer to pay over this money to the cotton States.

An Awful Tax.

How much the cotton States have heard of late years of the oppressiveness of the 35 per cent. tariff tax on cotton ties or hoops! The "Parsee Merchant" of the New York Times has dissolved in tears time and again over the sufferings it has brought to the cotton planters. So frequent and oft repeated have been his complaints, so great the shower of tearful objurgations, that even those who knew it was all a sham have been almost led to believe there was something in it. Job Trotter once got the better of the obdurate Sam Weller and his tender-hearted master, Mr. Pickwick, by pumping out any quantity of crocodile tears, but he never did it the second time. Our American Job Trotter, alias J. S. Moore, has been more successful with his simulated griefs over the awful tax the cotton planters have been compelled to pay for their ties and hoops. The MANUFACTURERS' RECORD, eager to do what it could to assist in removing any "incubus" upon Southern prosperity, has, since reading "Parsee Merchant"—Job Trotter—Moore's latest effusion, taken upon itself the duty of investigating this subject, and learning the facts which have caused that well-known writer to deluge with his ever-ready fount of tears half a column of the Times. Before reading the results ascertained, our readers will please get ready for a good cry. The United States collected through its custom houses for the year ending June 30, 1886, a duty upon 43,787,740 pounds of cotton ties and hoops, amounting to \$211,188. Counting the cotton crop of that season at 550,000 bales, and ignoring the manufacture of hoops and ties in this country altogether, cotton paid a duty that year of a fraction less than 39 cents per bale, or of less than one mill (.0866) a pound for the protection of American manufacturers of these indispensable articles used by the cotton planters.

Now if our American Job Trotter will run his eyes over the iron trade statistics of the ten years before 1861 and the ten years ending June 30, 1886, he will find (presumably to his great astonishment) that, in spite of this "awful tax" which wrings from him blistering tears, the cotton planters are actually paying less for their hoops and ties now than they did then. Why is this? Possibly that ingenious, if not ingenuous, contributor to current free trade literature will have the kindness to enlighten that public which has listened to his tale of woe.

The Great Piedmont Exhibition.

An Epitome of Southern Skill, Industry and Development.

(Special correspondence MANUFACTURERS' RECORD.)

OFFICE MANUFACTURERS' RECORD.
EXPOSITION BUILDING,
ATLANTA, GA., Oct. 11, 1887.

The opening of the Piedmont Exposition in Atlanta on the 10th instant was another harmonious and tuneful keynote to the South's march in industrial progress and material development.

When the Hon. Samuel J. Randall, one of the venerable leaders of protection in the Democratic party, touched the electric key by which the machinery of the great Piedmont Exposition moved into apparent life and being, it was at that moment the New South made another step in the course from the cradle of progress to manhood's industrial estate, thus reasserting herself in all the grand and imposing features which so largely combine to make a country, prosperous, homogeneous and happy.

As the electrical spark ramified itself in an instant through space and current to the ponderous wheels of machinery, there was a revolution made which set into motion a thousand industries of the New South, sending, at the same time, an electrical thrill of pride into every Southern heart present.

The visiting men of the North looked on and cheered to the echo, while the men of the South lifted their hats and blushed with pride and pleasure at the sight presented to the view. The two sections joined hands, uncovered their heads and with one voice gave a tremendous applause, which found a hearty response in every nook and corner of the great building from visiting friends from every State in the Union.

The fruits of the loom, the cereals from the ground, the minerals from the hills, the woods from the forests, and the precious gems from the valleys, washed by many centuries, all along the great Piedmont belt, from its base to its summit, told the story of the South's great triumphal march in all that pertains to progress, development and industry.

The aged fathers of the Old South, propped up by their canes of hickory and oak, stood amid the great crowd and cheered as if they were boys on the scene of action again. Pious mothers, leaning on the arms of their heroic sons, drooped their heads and let fall a tear of pleasure as their Spartan hearts burst forth with a hearty amen. The younger generation, the men and women on the stage of action of to-day, the blood and sinew of the New South, formed into line with a keen relish of good work done, and found gratification of their pride in looking on and listening to the words of praise from every lip present.

The scene was one long to be remembered and to be reverted to in ages to come with pride and pleasure. It was a wonderful creation, this Piedmont Exposition,—the beginning of a practical showing of what the South has and what the South can do. It is not the accumulation of great wealth by which we gauge a country's progress and advancement, but in its increase in the productiveness of the soil, the building up of manufactures, of "steam power and energy," the advance in science, in agriculture, the production of machinery and metals, the power to demand and command trade, these are the factors of national prosperity which the South has so beautifully and practically illustrated at the great Piedmont Exposition in Atlanta.

To-day the buildings are jammed with a mass of living beings, men and women, representing nearly every State in the Union, young and old, rich and poor, men of the purple and men of the homespun, all bent on sight-seeing, in looking at the productions of the skill and the energy of the prosperous and uplifted South—the most benign and gracious abiding place of the Western hemisphere.

Here, in every available space, are spread the products of the far-famed Piedmont belt in glowing array. The fruits in their luscious, tempting sweetness; the cereals, which give bone and sinew, long life and happiness, sturdy manhood and moral force; the minerals in all their richness and productiveness, glowing with hidden wealth; samples from the South's unbounded and almost unbroken forests, fashioned into almost every conceivable variety and marketable shape; iron ores ponderous in their mighty weight of value and usefulness; mechanisms of utility and force; devices of labor-saving machinery, and a thousand and one useful inventions are spread to the sight-seers in taste and beautiful design, exemplifying and portraying the resources, advantages and possibilities of the great South, from whose lap Mother Earth has so kindly tendered us the fruits and productions of her most gracious soil.

In my next letter, when everything has settled down to system and order, I will give in detail some account of the chief exhibits for the benefit of such of the readers of the MANUFACTURERS' RECORD as from the force of circumstances are denied the privilege of attendance at this wonderful and magnificent Piedmont Exhibition.

HINTON A. HELPER.

GADSDEN, ALA., Oct. 10, 1887.

Editor Manufacturers' Record:

The iron work on the bridge being built by the Anniston & Cincinnati Railroad across the Coosa river at Gadsden is being put in position. All the stone piers but two are completed, and the bridge will be ready for the trains by January 1st, if not sooner.

The Elliott Car Co. have three of their immense buildings about completed. The fourth and largest building is going up. Engines and boilers are all in position, and the works are being pushed rapidly to completion.

Fire-clay of the finest quality has been discovered by Mr. Balcome near Gadsden. The clay has been thoroughly tested, moulded into brick, dried in stove and put into hot blast room at the Gadsden Iron & Coal Co's furnace and subjected to a heat of 1,200 degrees and stood the test without the least show of damage. It stands fire equal to asbestos.

The new hotel has reached the fourth story. The stone work is all completed. The building when completed will not be the largest, but will certainly be the handsomest in the South.

The Kyle Lumber Co. commenced on their contract for 3,000,000 feet of car sills for the Elliott Car Co.

Gadsden needs and wants 200 houses now for mechanics. New buildings going up every day, but the demand can not be supplied.

M. L. FOSTER.

MR. E. H. WALKER, for many years statistician of the New York Produce Exchange, has joined the editorial staff of Bradstreet's, the well-known commercial and financial newspaper published in New York, to which he will give his exclusive services. Mr. Walker is perhaps the best informed man in the country on the statistics of grain, flour, provisions, live stock and kindred lines. He is the author of the only complete records of this kind in the country, and the inventor of the "visible" grain supply statement. With his aid, in addition to the original work in that direction which Bradstreet's has done and has projected, that journal must become indispensable to all interested in those subjects.

THE BALTIMORE MANUFACTURERS' RECORD is doing a grand work for the upbuilding of the Southern States in collecting, collating and publishing reliable statistical data about their resources. It also gives editorial recognition of the valuable services of the Southern press in the promotion of the same object.—Chronicle, Charlotte, N. C.

Many Facts of Interests.

Newsy Notes, Agricultural and Manufacturing, from Mississippi.

[Special correspondence MANUFACTURERS' RECORD.]

ABERDEEN, MISS., October 15, 1887.

Plantations in the Yazoo Delta that are making a bale of cotton to the acre, will get through picking by the first of November. This will be from six to eight weeks earlier than usual.

Mr. W. E. Phillips, of Yazoo county, is growing a magnificent variety of apples called the "Ben Davis." They measure from 11 to 14 inches in girth. He has a large orchard of apples, peaches and pears, and expects next season to make heavy shipments.

Messrs. Richard and Charles Ledbetter, of Yazoo county, have a pasture of 1,200 acres of native grass, on which are 200 head of cattle and a number of brood mares. Last week they sold in Yazoo City 27 head of beeves of their raising, that were "seal fat," and did not cost them a cent to raise or fatten. The price received for them was \$540, or \$20 a head. They sold at the same time one of their two-year old colts for \$100.

The packing of mullet at our seashore towns, which has been several times before referred to in these notes, is assuming important proportions, and the catch this fall and winter promises to be enormous. These salt water fish are entering the market under the name of "Mexican mackerel," and are pronounced on all hands to be superior as an article of food to the mackerel of the Eastern coast waters. The mullet abounds in vast numbers in the Mississippi sound, and they are taken with great ease and cured very cheaply. The salt from the Louisiana mines can be brought to our coast at light cost, and the Mississippi "mackerel fisheries" promise to be one of our leading industries.

This week and next will be devoted to fairs in many of the counties of Mississippi, and live stock will be exhibited at most of them that will represent the choicest breeds of cattle, horses, hogs, sheep and poultry known to the civilized world, while the farm and orchard exhibits will illustrate the wonderful generosity of Mississippi's soil and climate, by presenting in rare excellence every fruit and cereal that can be grown anywhere else between the equator and the North pole.

Mr. J. L. Riggan, of Monroe county, last week presented the Aberdeen Examiner with a sample of sorghum molasses, representing a yield of 154 gallons of "clear and delicious syrup" to less than three-quarters of an acre of cane. The Examiner says: "Monroe county produces immense quantities of this valuable article of food, the red top cane being chiefly cultivated."

The Aberdeen fair, which is the chief hay, blood cattle and dairy product exposition in the State, opens on the 25th inst.

It was feared early in the season that the supply of labor in the Delta and other river counties would be inadequate to the task of harvesting the cotton crop, but the planters have been agreeably disappointed; the supply has been abundant; the wages asked have been reasonable, and the work has progressed from the first in the most satisfactory manner.

The shipments of lumber from the port of Pascagoula for the week ending October 14 amounted to 370,000 feet, and 21,000 shingles. Of this amount 200,742 feet were to Vera Cruz, Mexico, and the remainder to Key West, Florida.

The shipments of lumber from Pearl River, during the week, from the great mills of Poitevant & Favre, amounted to 1,499,000 feet, of which 445,000 feet went to Aspinwall, Central America; 557,000 feet to Buenos Ayres, South America; 137,000 feet to Tampico, Mexico, and 360,000 feet to Wilmington, Delaware.

Messrs. Poitevant & Favre have built a railroad from their mills at Pearl River to Arbita Springs, in East Louisiana, and are taking measures to add materially to the attractions of that ancient watering place.

Invalids from the North and West are beginning to assemble for the winter at the lovely villages on the south coast of Mississippi. The probability is that the hotels at Mississippi City, Bay St. Louis, Pass Christian, Biloxi, Ocean Springs and Pascagoula will be as well patronized by Northern people this winter as they were by the people of the South during the summer months.

Mississippi dairymen have no trouble in getting highly colored butter all through the winter from Jersey cows fed on our rich Japanese clover and other nutritious native grasses.

Copiah is the leading county in the State in the way of fruit and vegetable culture for shipment, as it is in the matter of woolen and cotton manufacturing. As an illustration of the progress this industry is making, we quote the shipments last year from one station in the county, Crystal Springs, to wit: 4,000 crates of strawberries; 10,000 bushels of snap-beans; 10,000 bushels of green peas; 185,000 boxes of tomatoes; 40,000 boxes of peaches; 3 car-loads of musk melons, and a large quantity of potatoes, apples, Japanese persimmons, etc. Very large quantities of fruits and vegetables were also shipped from Wesson, Hazlehurst, Beauregard and other stations in the same county, and it is confidently believed that the products and exports in this line from Copiah next season will be double those of any previous year, for the railroads are giving every possible facility both in the way of transportation and cold storage warehouses.

These products found ready markets at highly remunerative prices all over the North, East and West, from Montreal, Canada, to Denver, Colorado. The pioneers in this great industry were Major Sturgis and Dr. H. W. Stockhouse, among the oldest inhabitants, but hundreds of others are following their example and many horticulturists are being attracted to that county by their success, and lands are rapidly advancing in value.

The correspondent of the New Orleans States says that Mr. Parker Earl, formerly of Illinois, but now a fruit grower in our sea coast region, made ten thousand dollars in forty days last season in buying and shipping fruits and vegetables from Copiah county.

Another Illinois immigrant, Mr. J. W. Day, raised a crop of tomatoes from three quarters of an acre in that county that netted him \$993.

The success of this industry is quite as marked in Madison county, the sea shore counties, and many other portions of the State, and the organization of the numerous fruit and vegetable growers' associations within the last ninety days that have been reported through these columns indicates an enormous export business in this line in 1888 and all succeeding years, in addition to the establishment of canning factories, fruit distilleries, and vinegar factories for the consumption of products too ripe to ship, everywhere in the commonwealth.

An experienced and observant Monroe county farmer, who has recently visited every portion of the county furnishes me the following report:

"I never saw hay as fine as it is this year, or so well cured.

Corn is by far the finest and best crop made since the war and is being harvested in splendid condition.

The pea crop is probably not so good as last year, but the area is much greater, which assures an abundant supply.

The sweet potatoe crop is only moderately good on account of late drought.

The sorghum crop is the best ever made, and has been saved in excellent shape.

The oat crop was good, though the area was not as great as it was last year,

The area planted in tobacco this season was largely in excess of that of 1886, but the crop was greatly damaged by drought.

This has been a grand fall for harvesting and farmers have taken advantage of it."

The above report is a fair one for the greater portion of the State, for Monroe county contains every variety, condition and quality of soil that is to be found within the borders of Mississippi.

ATHENS, TENN., October 12, 1887.

Editor Manufacturers' Record:

The annual meeting of the Athens Mining & Manufacturing Co. was held to-day and the following directors elected for the ensuing year: R. L. Bright, Chattanooga; W. M. Nixon, R. J. Fisher, F. B. McElwee, W. Gettys, J. L. Young, Athens; M. Durner, Cincinnati; E. C. Pope and J. B. Coffinberry, Cleveland, Ohio. The report of the president, Col. R. L. Bright, and general manager, R. J. Fisher, showed the affairs of the company to be in excellent shape, and future prospects bright. The sale of lots at auction on June 2d last, and at private sale since then has aggregated over \$100,000, and the company is in position to consummate its guarantees made to stockholders and investors and place upon the company's property over half a million of improvements. The Tellico Railroad has already been commenced and grading done at the Athens end of the road, a preliminary vote of \$50,000 having been made for that purpose. By a vote of the stockholders the directors were authorized and empowered to enter into contract with parties who have made propositions for the establishment here of manufacturing plants. Among the propositions considered were the following: A cotton warp mill, 5,000 spindles, employing from 100 to 125 persons; plant to cost \$125,000; plaid and sheeting mills, capital \$200,000; a \$250,000 cotton tie mill with capacity of 33 tons per day; tannery, employing about 100 men, capital \$50,000; furniture factory, to employ 200 men, capital \$60,000, and a stove foundry. Plans and specifications were also presented by Mr. J. C. Veale, architect, for a magnificent hotel of stone and brick, estimated cost \$26,000. The water supply was also considered, several propositions having been made relative thereto, and the directors authorized to consummate arrangements therefor. At a subsequent meeting of the directors Col. R. L. Bright was re-elected president and W. Gettys, vice-president of the Athens Mining & Manufacturing Co. At a meeting of the citizens of Athens held Tuesday evening, for the purpose of considering the vote to be taken Saturday next on the proposition of taking \$22,000 of the bonds of the Tellico Railroad Co., the sentiments expressed were decidedly in favor of raising said amount. Persons hitherto opposed to the project wheeled into line and came out strongly in favor of assisting the new road, which is to open up for Athens such vast mineral and timber wealth. The undersigned still remains secretary and general manager of the Athens Mining & Manufacturing Co. and all communications concerning inducement offered to manufacturers to locate in Athens, should be addressed to me.

R. J. FISHER, Gen'l Man.

THERE is a very imperfect appreciation of the great changes that have taken place in the Southern States within the past few years among people in the North, and perhaps in no instance are greater efforts being made to enlighten the public than has been shown by the MANUFACTURERS' RECORD, of Baltimore, which publishes reports in detail of the new improvements started throughout the Southern States from week to week, while it occasionally summarizes the results. —Stockholder, New York.

If you wish to keep posted on the progress of the South, read the MANUFACTURERS' RECORD. Price \$3.00 a year.

On the Location of Towns.

Natural vs. Artificial Advantages.

TUSKALOOSA, ALA., Oct. 15, 1887.

Editor *Manufacturers' Record*:

While both of these classes of advantages are necessary, the grand cardinal and controlling distinction between them is that the last named can be supplied while the first cannot. Once lacking, these are always lacking; or, if in some cases the deficiency can be imperfectly supplied, it is always at such expense that great burdens in the way of taxation, etc., are entailed for long periods of time, or in perpetuity, upon the people of the city or town concerned.

This point, which is of such vital importance to all parties contemplating settlement or investment in a new place, in calculating its probable future, will perhaps be better appreciated if we run over briefly and one by one the natural advantages going to make up what we may call an ideal city location, and call attention to the consequences of the absence of each one named.

Taking the case of a town aspiring to become a large manufacturing city we will presuppose cheap and accessible raw materials; next will come facilities for the shipment of its products. The facility which falls under the head of natural, of course, is a navigable stream, and we proceed to consider the con-

brought long distances at heavy cost, and a burden is thereby entailed upon the community which acts perhaps for generations as a handicap upon its progress.

Natural or easy drainage again is another. When this is lacking the damage is immense and increases with the increase of population and can only be imperfectly overcome, even with large expenditure, where conditions are decidedly unfavorable. Another condition which is intimately connected with the one last mentioned, is natural elevation and consequent freedom from malarial influences. This approaches very nearly to a natural advantage pure and simple, as it is almost entirely beyond human control.

Leaving now this line of the natural advantages bearing upon public health we will turn to another class bearing equally heavily if less tangibly upon the growth of a town.

The first of these is good agricultural surroundings. This acts upon the welfare of a town in various ways. For one thing it gives a basis of existence free from the fluctuations incident to manufacturing. Agricultural products are staple and give a mercantile basis at all times. It also makes living relatively cheap and in this way makes a place attractive to a laboring population. Cheap food materials afford also raw material for that long list of manufacturing industries which concern themselves with the commercial preparation of food-stuffs, as canneries, starch factories, meat preserving plants, etc.

Another very essential natural advantage is proximity of cheap and suitable building material, as good brick clays, building stone, timber, to render the erection of houses



NEW STYLE ELEVATOR HEADS.

sequences of the lack of such a stream on the growth and prosperity of the town. The function of such a stream is two-fold; it serves both as an actual agent of transport and as a controller of competition. In its latter capacity its action applies to all classes of goods. Used or unused, its silent capacity for use tames to dove-like mildness the most grasping railroad monopoly, and reduces to "innocuous desuetude" the combinations of the farthest reaching railroad pool. Towns situated upon it are safe against the caprice of railroad corporations, and against summary strangulation for the good of their neighbors.

In its first capacity, as an actual agent of transport, it is indispensable for the carriage of heavy and bulky articles. No railroad for long distances can compete with a river in the transportation of coal or iron and similar articles of bulk and weight. It is a natural impossibility. In expressive slang, "They are not built that way." The consequence of all this is that in no time or country does there exist, or has there existed, a manufacturing city of the first-class away from a navigable stream. This lack, when it exists, is one that can never be supplied.

Next come the natural advantages which conduce to public health. An abundant supply of pure water is one of these. This, when it does not exist in easy reach must be

cheap. Another is abundant and cheap material for road and street making, etc.

All the items given enter directly into the growth of a town. The lack of any one of them impedes that growth and the want of several would be fatal to it. Hence, it behooves both investors and settlers when their attention is solicited to a given place, with a view to investment or location, to examine carefully with respect to the points named, for any artificial advantages such as railroad connections can and will be supplied if the place has merit sufficient, but natural advantages such as we have indicated can never be supplied where they are lacking.

This article is not written with any intention of drawing comparisons, but in closing, without making any contrasts with other points now bidding for public favor, I wish to call attention to one actually possessing all the natural advantages enumerated.

Tuskaloosa, Alabama, is at the head of navigation of the Warrior river, the only navigable river which touches the coal fields of the State and the natural outlet to the Gulf and Atlantic States of the coal and iron, a stream navigable now eight months in the year and soon to be made so the year round. And it has also natural drainage, abundant water supply, is actually underlain with coal, lies high above all malarial surrounding, has fine building material, timber, stone and clay, the finest gravel for road making and one of the finest agricultural territories in the South adjacent and tributary to it.

These are high claims, but investigation will verify them, and investigation is all that is asked by her,

J. W. C.

New Style Elevator Heads.

The elevator head shown herewith may on first sight appear to have nothing different in its construction from the ordinary elevator head one commonly sees in mills and factories, but on closer inspection it will be noticed that the wheel used is devoid of teeth and that the chain consequently is not dependent on the teeth for its grip or for keeping it from slipping off laterally.

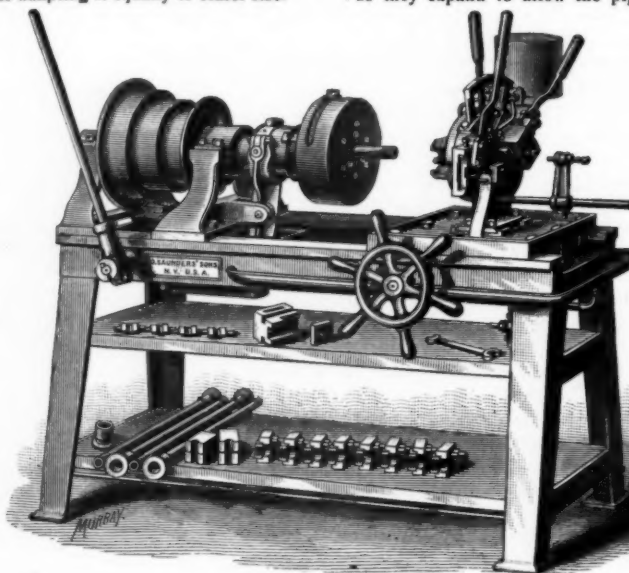
The chain belt used in these elevators is the Ewart detachable link belt, and the ribs on the back of each link, besides greatly adding to its strength, also keep the chain from slipping off laterally where this style of wheel is used, these elevators being called "traction elevators."

These wheels have been found very satisfactory for use in elevators handling heavy material, the grip being ample to do all the work that the link belting and buckets should be called upon to do, and at the same time in the event of a serious obstruction, the absence of sprockets will permit the traction wheel to slip, where in other cases something would have to break.

Elevators provided with these wheels and chain, made in several sizes and of various working strains, some reaching as high as 2,800 pounds, will, it is claimed, run smoother and last longer than they would if sprocket wheels were used. The chain does not require to be kept very tight, the weight of the chain and buckets being quite sufficient to grip the wheel. These elevators have been thoroughly tested in coal, ashes, phosphate, broken stone, clay, etc., and have proved very satisfactory. For prices and full particulars address, Messrs. Burr & Dodge, Baltimore, Md., and Philadelphia, Pa., or the Link Belt Machinery Co., Chicago, Ill.

Pipe Threading and Cutting Machine—Adjustable Expanding Screw Cutting Die.

The engraving of pipe threading machine represents the No. 0 size, made by D. Saunders' Sons, Yonkers, N. Y. This size machine is designed for cutting pipe from $\frac{1}{8}$ inch to $\frac{3}{4}$ inch, and by combining with it the No. 1 lever nipple chuck it is a very complete machine for making nipples of the sizes given above. The machine is designed with much care, and with special reference to doing good and rapid work. A feature of importance is the proportioning of the speed and power so as to give practically uniform cutting speed for the different sizes of pipe, thus adapting it equally to either size.



PIPE THREADING MACHINE.

The chuck is arranged so that the gripping jaws are quickly and powerfully operated without stopping the rotating motion of the chuck, thus saving the time in stopping, also the screwing and unscrewing of the gripping jaws, as is the case with the ordinary pipe machine chuck. The arrangement of the gripping jaws is such they can be quickly altered to hold any of the various sizes from $\frac{1}{8}$ inch to $\frac{3}{4}$ inch.

The die head has open or expanding adjustable dies in halves, and of new design.

These are so arranged on the face of the die blocks or slides that close threads can be cut. They are easily adjusted and opened instantly by the lever when the requisite thread has been cut, without stopping or reversing the motion. The dies expand wide enough to pass the pipe through for cutting off, and held clear of the chasers by special half bushings for steadying the pipe while being cut off.

The cutting off arrangement is very complete; the pipe is steadied and released by the movement of a lever, and the cutting off tool operated by another lever. The lever gives a quick and powerful movement, saving the time of screwing and unscrewing, as in the use of a screw movement.

This machine gives general satisfaction, being a practical and reliable tool and



EXPANDING SCREW CUTTING DIE.

adapted to all the various kinds of pipe cutting with least loss of time. And when combined with No. 1 lever nipple chuck makes a very complete machine for making nipples $\frac{1}{8}$ to $\frac{3}{4}$ inch.

The expanding screw cutting die made by the same firm can be attached to any of the ordinary pipe machines.

The advantages of these dies are, they can be enlarged or reduced as may be required, and are so arranged that the halves are opened by the lever as soon as the thread is cut as far as required, and the pipe taken out without reversing it.

These dies do not require to be moved from their place while cutting off the pipe, as they expand to allow the pipe to pass

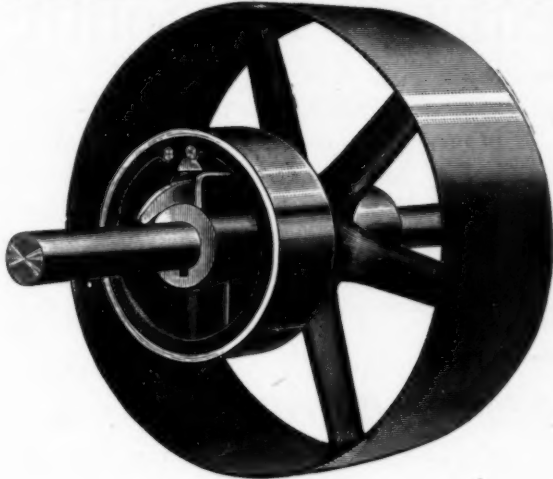
through into the guide in the cutting off head of the machine. The cutters or chasers can be taken out and sharpened by grinding; when too much worn they can be reboxed and used again, which operation can be repeated several times.

This style of die has but one head, with sets of two slides or die blocks, and half dies or chasers attached for each size. To change from one size to another, place the lever in an upright position, then withdraw the die blocks with the chasers, and replace them with another set the size wanted.

A New Friction Clutch.

Friction clutches have long since been demonstrated a valuable invention and a real necessity in power and transmission, both for the sake of economy and convenience.

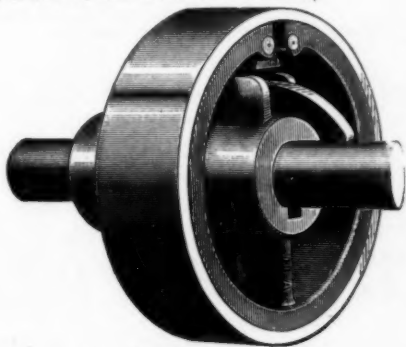
We present herewith engravings and descriptions of a new clutch, the invention of Mr. H. W. Hill, of Cleveland, Ohio, that is daily growing in popular favor, and has taken a leading place in the market. The clutch is



CLUTCH PULLEY.

made in two styles, "A" and "B," by the Hill Clutch Works, Cleveland, Ohio., said to be the only manufacturing concern making a specialty of clutches and manufacturing nothing else.

The Hill clutch "A" is made with either two or four arms, according to the amount of power to be transmitted. The "A" clutch pulley, as shown in our illustration, has a clutch ring cast (not bolted) into the arms of the pulley. This ring is turned and finished absolutely true, and is grasped on the outer and inner sides by the eight clutch members, which are shod with thoroughly seasoned maple. The radial motion of the jaws or clutch members is produced by the sliding collar (seen to the left of clutch) being pushed toward the clutch, operating the link and two angle levers with which it is connected to the clutch jaws, in such a manner as to force the outer jaws inwardly and the inner jaws outwardly, until they grip firmly both sides of the ring, and also so that the sliding collar cannot be kicked out. By moving the sliding collar out by means of a long lever attached to it, the jaws or frictional surfaces are instantly disengaged. The clutch is operated very easily and without start or jar to the machinery, and is key-seated securely to the shaft. The pulley, of course, runs loose on the shaft.



CLUTCH COUPLING.

It is nicely finished and accurately balanced, and fitted with an automatic grease cup, and the Hill patent split movable sleeve or bushing, which for high speed is babbitted with the best Babbitt metal. The great value of a sleeve of this kind in a loose pulley is evident, and is also shown by the number of shops that have adopted it. The slight wear on the wood jaws may be taken up by set screws, and when worn out can be renewed.

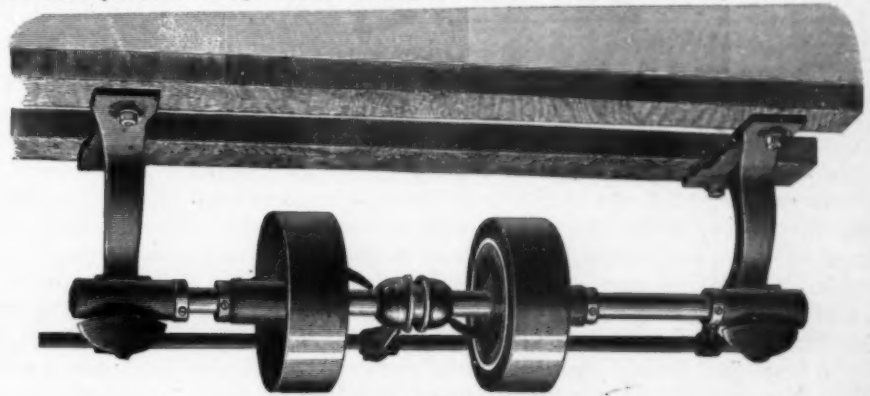
All parts of these clutches are made strictly to gauge, and duplicates of any part

may be ordered by number to take the place of those worn out or broken by accident, and the new parts will fit in their place as perfectly as the old ones. The interchangeability of all like parts of these clutches is a guarantee of their careful and accurate workmanship, and is something new in the clutch business. The new Hill clutch "B" shown herewith has been on the market only a short time, but has met with great favor on account of its extreme simplicity.

This clutch supplements the "A" clutch, which is only made as small as 18 inches in diameter, while the "B" clutch is made as small as 6 inches in diameter.

The operation of this clutch can be seen at a glance, it is so very simple. The clutch consists of an outer and inner ring; the outer ring is sometimes cast into the arms of the pulley, or, as shown in illustration, fastened to the hub of pulley. The pulley with outer ring runs loose on the shaft, while the inner ring is key-seated securely to the shaft. The clutch is operated by means of a sliding collar being pushed up against the small lever, shown in cut, by a long lever. In this way the small lever forces up a wedge which expands the inner ring against the outer ring, holding same securely. The clutch is fitted with an automatic grease cup, which lubricates the frictional surfaces and prevents wear; but this does not in any way prevent its holding firmly.

This clutch, as said before, is well adapted for small sizes and for use on counter-shafts, as illustrated herewith. The Hill Clutch Works are, however, building this clutch as large as 72 inches in diameter, but these large clutches are built slightly different. The inner ring is divided in two parts, or



NEW COUNTER-SHAFT CLUTCH "B."

rather it may be said to consist of two arms, and is expanded by two wedges in the same manner as the smaller sizes. The Hill Clutch Works build friction cut-off couplings of both the "A" and "B" style. We show the "B" style herewith, but an explanation of their operation would be but a repetition of the foregoing.

Although the Hill Clutch Works have been running but a short time, the high standard of their work, which is under the personal supervision of the inventor, has become widely known, and they are enjoying a large and increasing trade, and are now making preparations to increase their capacity.

Kentucky Coal Fields.

The following is an expert report on the Eastern Kentucky coal fields:

ABINGDON, VA., Oct. 10, 1887.

Col. J. B. Killebrew, Nashville, Tenn.:

DEAR SIR—I give you in the following a plain statement relating to the coal in Pike county and a portion of Martin county, Kentucky.

You will please notice on the margin of this a column of the coal beds as found in these counties.

No. 1. No. 2. No. 3. No. 4. No. 5.
100 feet. 175 feet. 100 feet. 325 feet. 100 feet.

No. 1 (Jaw-bone) from 3 to 5 feet thick; it makes a fair coke and is an excellent

COAL FROM NO. 1—"JAW-BONE."	Fixed carbon.	Ash.	Sulphur.
35-30	85.94	3.86	0.715
COKE FROM SAME.	94.7	4.7	0.835
COAL FROM NO. 2.	86.54	3.5	0.499
COKE FROM SAME.	95.4	4.0	0.517

Before we began buying in Pike and Martin counties the only field that received any notice was that described by the Kentucky Geological Survey, lying southwest of Russell Fork and the Big Sandy river, some distance below the forks Louisa and Russell. I ventured my judgment that a field as good as that described by the Kentucky Geological Survey would be found on the Louisa fork and its tributaries, and on Johns, Peter, Blackberry and other creeks. An examination has proven my judgment correct and this territory we now control.

I supplement this with copy of letter from

domestic coal. It is identically the same as the "Clarion" of Pennsylvania, and the "Eagle" and "St. Clair" of the Kanawha, W. Va., region.

No. 2. is the celebrated "Elkhorn" (Imboden of Wise and Dickenson, Va.) coking coal; it ranges from 4 to 8 feet in thickness.

No. 3. This is usually a splint and excellent; (our lower banner); ranging from 3 to 4 feet in thickness.

No. 4. This is an excellent coking coal and almost, if not fully equal to the Elkhorn. Our upper banner ranges from 5 to 6½ feet in thickness.

No. 5. The cannel coal, in the main of

my man Robinette, whom I have had employed exploring this field, though I have been over a great part of the field viewing the coal myself; this I did in August.

PIKEVILLE, Sept. 21, 1887.

Mr. O. Barrett:

DEAR SIR—I went over on Peter creek and on the stream just above where we staid all night (August 30) and found the Imboden 5½ feet thick; also found the Imboden on Blackberry creek ranging from 5 to 6½ feet thick. There I found the two Banner beds, one mile from the mouth of Peter creek (which empties into Tug river), on the ridge between Peter and Blackberry creeks. The lower Banner is 3 feet 7 inches and the upper 6 feet 1 inch, with 1 inch parting. Did not find the Jaw-bone on Blackberry

this region, and ranging from 3 to 4 feet in thickness.

These five seams afford all known varieties of bituminous coals. These same seams are identically the same as found in our field in Wise and Dickenson, Va., holding their thicknesses well. These coals dwindle down to small proportions between some point in Martin county and the Ohio river, becoming almost useless along the Ohio.

The following are analyses of numbers one and two:

creek (but it must be there), but found it down below there, on the McCoy branch, six feet. Jaw-bone on Big creek is five feet one inch. On the head of Pigeon Roost found the upper Banner six to seven feet, with a rock parting. It is all block coal. I have been working at the upper Banner on Louisa Fork, but have not got far enough in to make good coke. It is fine coal, six feet two inches, with one inch rock parting.

Yours truly, ELBERT C. ROBINETTE.

It may be safe to say that the results of an examination, given in this partial report, prove this field to be one of extraordinary excellence, and which cannot be excelled.

Very respectfully, O. BARRETT.

SHEFFIELD

◆ COLBERT COUNTY, ALA. ◆

The Iron Manufacturing Center of the South.

BEING at the *head of navigation*, and on the *south* bank of the Tennessee river, Sheffield is the *natural outlet* for the mineral and manufacturing products of Alabama and neighboring States seeking a water route to points on the Ohio and Mississippi rivers, and to the Gulf of Mexico, as well as the best *distributing point* over Alabama, Eastern Mississippi and East Tennessee, South Carolina, Georgia and Florida for Northern and Western produce, groceries, provisions, machinery, &c. *Four railroads* certain, and several others assured. *Principal shops of Memphis & Charleston Railroad* will be erected here pursuant to written contract. These will employ between *four hundred and five hundred mechanics*, and consequently, with their families, will make an increase in population of at least two thousand people. Shops of three other railroads are contracted to be located here.

◆ Five Blast Furnaces Now Under Construction, ◆

Of which one is nearly finished, and the remaining four contracted to completion next spring, have estimated capacity of 700 tons pig iron per day. This is 40 per cent. more than now manufactured at Birmingham, Alabama. Experts do not hesitate to say that *iron can be manufactured more cheaply* at Sheffield than at Birmingham, and its *river transportation facilities* will enable Sheffield iron to reach the principal markets at a saving of from

\$2.00 TO \$2.50 PER TON.

A first-class semi-weekly newspaper, printed by steam, is regularly issued. Furniture Factory, Bottling Works, Bakery, 3 Steam Brick Works, 2 Hand Brick Works, 2 Steam Wood-Working Establishments, Water Works, 2 Banks, a Savings Bank, and Steam Job Printing Office already in successful operation, and Iron Pipe Works, 15-ton Ice Machine and five-story hotel, with all modern appliances, will be erected. The Cleveland Hotel, Park House and numerous boarding houses furnish accommodations to travelers. Postoffice, Telegraph Office and Express Office already established. Contracts have been made for the early erection of Electric Light Works, Paint Works, Agricultural Implement and Machine Works and Cotton Compress. Large Stove Works, Machine Shops, additional Iron Blast Furnaces, an extensive Charcoal and Chemical Plant, a large Rolling Mill and other manufacturing establishments under consideration, and will probably be built shortly.

Good Water. Free Public Schools and Churches. Health and Climate Unsurpassed.

Drainage excellent. Splendid opening for men of *push* and *energy*. No "Old Fogy" element here.

No better point for *profitable investment*.

◆ Sites for Manufacturing Enterprises, ◆ And for Free Public Schools and Churches

Donated by Sheffield Land, Iron & Coal Company.

Population January 1st, 1887, 700; now, (August 21st, 1887,) by actual count, 2,583. Increase of population, 300 per cent. in eight months, and only limited by accommodations.

Three years ago the site of Sheffield was cultivated as corn and cotton plantations, and was without a railroad. Numerous two and three-story brick business houses, and one and two-story dwellings have been, and are being erected. The class of buildings will compare favorably with those in cities of 20,000 inhabitants.

LIMESTONE of excellent quality for *fluxing iron* in unlimited quantities at the furnaces' sites. First-class building stone and brick clay abundant. Rich and extensive deposits of *brown hematite iron ore* within twenty miles, along the lines of two Sheffield railroads. The Sheffield & Birmingham Railroad runs through the heart of the *Warrior Coal Fields*, which abound in first-class *coking, steam, gas and grate coal*. *Timber* is abundant and cheap.

The *Memphis & Charleston Railroad* and the *Sheffield & Birmingham Railroad* are now in operation into Sheffield. The *Louisville & Nashville Railroad Co.* is now extending its *Nashville, Florence and Sheffield* division, which will be completed to Sheffield before the close of the year 1887. Surveys of three other railroads have been recently completed to Sheffield, which will soon be the *best combined river and railroad transportation center* in the South.

Every merchant and every established manufacturing enterprise is doing a profitable business. *More are needed.* For further information address

ALFRED H. MOSES, Vice-Prest. and Manager

Sheffield Land, Iron & Coal Co., - Sheffield, Ala.

Tuskaloosa, Ala.

* ALABAMA'S NATURAL PITTSBURGH. *

A Railroad & River Town of 6,000 Inhabitants, in the Coal, Iron and Timber District.

Healthful Location. Salubrious Climate. School Facilities Unequaled by any other town in the South.

+ SITUATED ON +

Queen & Crescent

— TRUNK LINE, —

IN THE

Warrior Coal Field

AND ON THE

WARRIOR RIVER.

Only Navigable River touching the

Alabama Mineral Field.

Eight Months Navigation. Being Surveyed
now to be opened all the year round.

All Water Navigation to

❖ **MOBILE** ❖

AND THE

Entire Gulf and Atlantic Coasts.

— THE —

Tuskaloosa Northern Railroad

Is now under construction into the

MINERAL and TIMBER FIELDS.

— THE —

Macon & Tuskaloosa Railroad

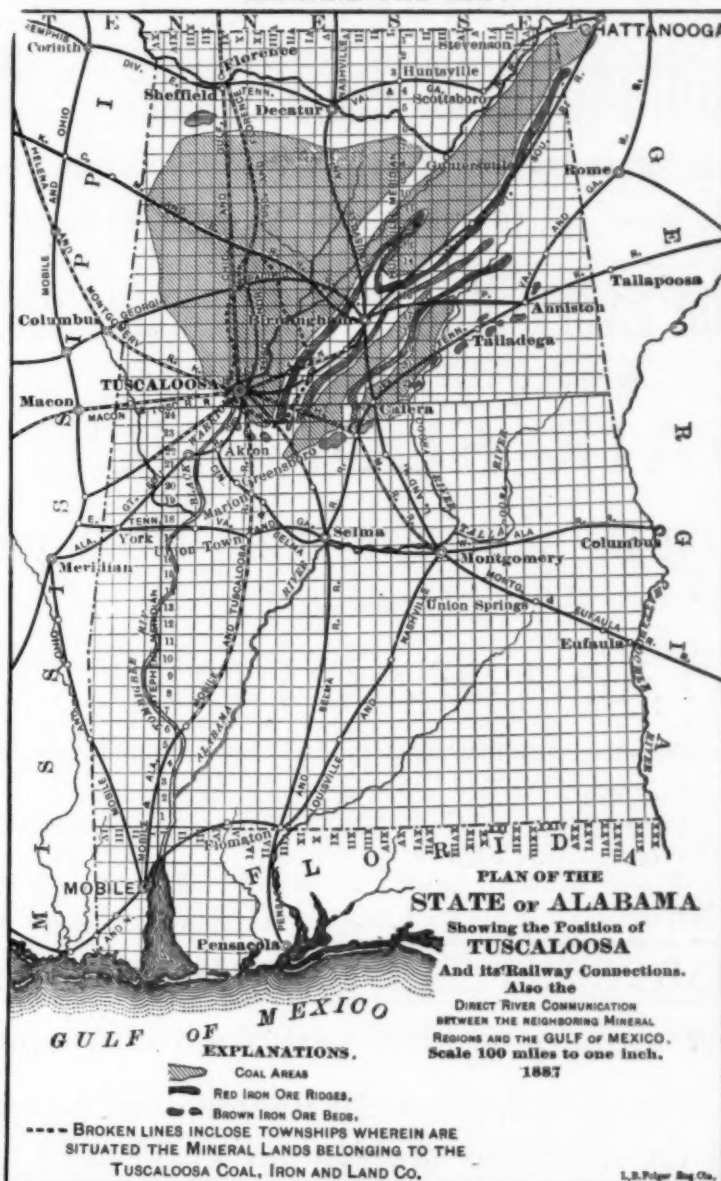
Will soon be building into the

COTTON REGION OF MISSISSIPPI.

Fine Farming Region

Around and Below the City.

"EXAMINE THE MAP."



superior Inducements

AND

+ ADVANTAGES +

TO ALL

Manufactories Consuming

**WOOD,
IRON,
COTTON.**

FINE COOKING COAL

In workable veins near city, fully tested.

◀ The Fire Clay ▶

Existing in inexhaustible quantities, has been
practically tested and pronounced

The Best yet Discovered in the South.

Street Car and Dummy Lines

NOW BUILDING.

◀ Water Works and Electric Lights ▶

TO BE PUT IN AT ONCE.

COTTON MILL

In Successful Operation.

ALSO

LARGE BRICK WORKS

COTTON-SEED OIL MILL, &c.

Manufacturers Seeking Locations in the South have here

THE GOLDEN OPPORTUNITY.

Many have availed themselves of it, but such is the wonderful richness of the resources of this section that there is

— ROOM FOR ALL —

THE Tuskaloosa Coal, Iron & Land Co.,

Owning 4,600 acres of city and suburban property, and 40,000 acres of mineral and timber lands, offers liberal inducements to manufacturers
to locate at Tuskaloosa, Nature's City, and invites correspondence and the fullest investigation of its claims. Address

W. C. JEMISON, President Tuskaloosa Coal, Iron & Land Co., TUSKALOOSA, ALA.

Florence, Ala.

County Seat of Lauderdale County.



At Head of Navigation on Tennessee River, and at Foot of Muscle Shoals Canal,
which will be open Jan. 1st, 1888.



SITUATED on a gently undulating Plateau, 200 feet above high-water mark, surrounded by three large creeks of pure free-stone water. It has a Court House, Two Colleges, Four Public Schools, Six Churches, beautiful wide streets, graded and graveled, and shaded with forest trees; Hotels, fine store houses, Masonic, Odd Fellows, K. of H. and L. of H. lodges. A population of 2,500—moral, social and hospitable.

❖ The Scenery on Every Side is Picturesque and Beautiful. ❖

SO MUCH SO THAT IT IS CALLED BY VISITORS

❖ 'FAIR FLORENCE.' ❖

There is no Place on the Continent more Healthful and Salubrious.

MANUFACTURES.

Within the last six months numerous manufactures have been located here, among the number:

Five Large Blast Furnaces.	One Saw Mill,	One Cotton Mill,	Two Brick Machines and
One Rolling Mill,	One Flour Mill,	One Cotton Compress and Ice	Three Hand-Brick Yards.
Three Planing Mills,	One Wooden-Ware Factory.	Factory.	

There are VAST BEDS OF IRON ORE within a few miles North and
IMMENSE COAL FIELDS SOUTH

ACCESSIBLE BY RAILROADS NOW BEING RAPIDLY CONSTRUCTED.

By the 1st of January the Nashville & Florence Railroad will be completed, making three lines of railroad, and the river, thus opening up VAST AREAS OF TIMBER, IRON ORE, COAL, Marble, Limestone, Kaolin, Fire-Clay, and almost every kind of mineral and product.

THE LANDS IN THE SURROUNDING COUNTRY ARE FERTILE AND PRODUCTIVE.



All kinds of Grain, Grasses and Fruits grow to perfection. Springs and Water Courses are numerous, and grazing for Cattle is abundant for eight months of the year.



Pamphlets and maps furnished on application to

Florence Land, Mining & Manufacturing Company.

GADSDEN, ALA.

Is situated on the West Bank of the COOSA RIVER, in the midst of the

RICHEST IRON AND TIMBER SECTION

IN THE FAVORED STATE OF ALABAMA.

➤ The Gadsden Land and Improvement Company ➤

Own large tract of Eligibly Located Residence Property in the Most Desirable Part of the City, and have fine location on river and railroad for

MANUFACTURING ESTABLISHMENTS,

And are offering great inducements to manufacturers to locate their plants in this *FAVORED LOCALITY*. No place in the South has such **Wonderful Advantages**. Situated in the midst of the *RICHEST IRON SECTION* in the STATE, at the foot of Lookout Mountain on the banks of a Navigable River, (*THE BEAUTIFUL COOSA*), surrounded by Forests of the Finest Timber on the Continent, with Fine Building and Fire Clay, and the *FINEST BUILDING STONE* all around us, with

Uninterrupted Health, and the Purest and Best Water and Finest Drainage of any City in the State,

Gadsden should become the Greatest Manufacturing Center of Alabama.

THE Alabama Great Southern, Rome & Decatur, Tennessee & Coosa, Anniston & Cincinnati Railroads, with the ever-flowing Coosa navigable the year round, gives us as *FINE TRANSPORTATION FACILITIES* as any other city enjoys.

We now have Railroad Car Works, Furnaces, Foundry and Machine Works, Saw Mills, Sash, Door and Blind Factory, Furniture Factory, Ice Factory, Paint Mills, Grist and Flouring Mills, Cotton Ginnery, Fine System of Water Works, Electric Lights, Telephone Communication over City, and also to neighboring cities Atlanta and Rome, Ga.

WE WANT Rolling Mills, Bridge and Bolt Works, Cotton Factories, Woolen Mills, Furniture Factories, in fact all kinds of Factories, even Coffin Factories, (but we want to ship the Coffins to some of the other booming cities.)

Liberal Grants of Land will be made by THE GADSDEN LAND AND IMPROVEMENT Co. to any of the above-named industries.

FOR FURTHER PARTICULARS ADDRESS —

M. L. FOSTER, Sec. & Treas.

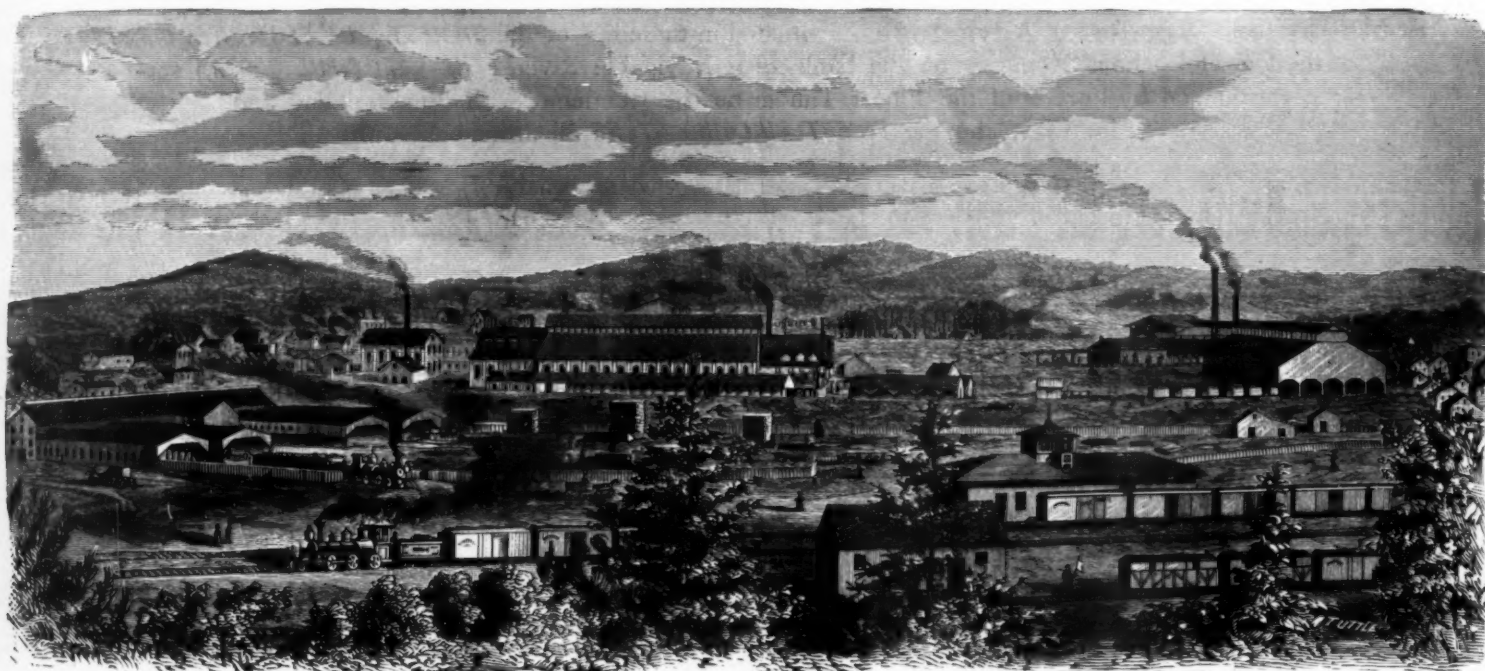
The Gadsden Land and Improvement Co., Gadsden, Ala.

POST-OFFICE BOX 145.

ANNISTON, ALA.

"The Model City of the South."

THERE is no healthier or more charming place of residence in America than Anniston; built on the slope of one of the highest of the chain of the Blue Ridge in Alabama, it commands scenery that is unapproachable in the State. Nature could not have formed a more beautiful place for man to build a city or given greater natural advantages. The natural drainage is most thorough and complete, while in addition the city is preparing a system of underground sewerage. *A more delightful and invigorating climate cannot be found anywhere:* mild in winter, cool in summer, a thousand feet above the Gulf, with the high and broken chain, range after range in the east, Blue Mountain in the north, Coldwater Mountain in the southwest, make Anniston the *coolest, healthiest and most attractive of any city in the South.* It has the richest agricultural country surrounding and tributary to it in the State, to support a manufacturing and mercantile population. The mountain sides will grow the grape and every kind of large and small fruit to perfection, and the valleys every product of diversified farming. *It is in the heart of the richest mineral district of the South,* and commands the great fields of brown hematite ores on which the great and successful manufacture of iron must in the end depend for quality and profit in every branch of most skillful and best manufactures of iron and steel. It has tributary to it *the best and most extensive pine forests in North Alabama,* that are reached by roads owned and controlled by Anniston citizens, while it has secured to its industries the very best coal mines and coking coal in Alabama. There is no city in America, in proportion to population, that has the manufactures of Anniston, or employs as many working men, or does a larger mercantile business. The industries already in full and profitable operation in Anniston are the **two Woodstock Furnaces** producing six hundred tons of Standard Car Wheel and Malleable Iron per week, and the **two Clifton Furnaces**, tributary to Anniston, producing nearly as much more. The **Car Works** are fully employed turning out forty cars per week, and are introducing new machinery and larger engines to increase their capacity to twenty cars per day. The **Rolling Mill and Car Wheel Foundry and Steam Forge** are among the largest in the South, of a capacity of two hundred wheels, a consumption of 120,000 pounds of metal per day, exclusive of the Rolling Mill and Steam Forge. These works are being enlarged to meet the increasing demands upon them. The **Cotton Factory** is one of the largest in the South, containing 11,700 spindles, and is running to its full capacity, while the foundry of **Murray & Stevenson**, and machine shop of **Pindar & Co.**, and planing mills of **Miller & Smith** and **Farrar & Co.** employ a large number of men and are crowded with work. The new industries that are now under way and provided for will within the next twelve months **Add Four Thousand Additional Working Men to Anniston's Population.** Two of the **Largest Iron Furnaces in the South**, capable of producing two thousand tons of iron per week, are progressing rapidly, and one of the **Largest and most complete Pipe Foundries in the world** for the production of **Gas and Water Pipe** is under construction,—it will employ nine hundred men.



CAR WORKS, ROLLING MILL AND BLAST FURNACES—ANNISTON.

The **Steel Bloomery**, for the production of Steel Blooms, is nearly completed, and the **Fire-Brick Works of Taylor & Sons** are ready for operation. The **Ninety-Inch Morse Cotton Compress**, with its warehouses, will be ready to receive the coming crop. Forty thousand bales, it is estimated, will be secured to Anniston from the territory that its system of railroads have opened up. The completion of the **Anniston & Cincinnati Railroad** during the present year, that will be owned and controlled by Anniston's citizens, opens up new territory and forms a **New and Shorter Grand Trunk Line to Cincinnati and the great Northwest, and to the Southwest via New Orleans and Shreveport.**

It is only the profits of business and labor that can add to the wealth of a community, add to or maintain the value of real estate, and add to the prosperity of its people. Having this in view, every industry and business in Anniston is established on a *profitable* basis. All its merchants are doing a large and profitable business, far larger than they prepared for or anticipated; it is the same with the manufacturers, while *not a dollar of debt has been created*, either by issue of a bond or placing of a mortgage on any of its old or new industries, leaving their earnings free from fixed charges that must be paid in times of depression as well as of prosperity. *To the investor, either in business, manufacturing or real estate*, nowhere else are presented opportunities as safe, secure and certain as at Anniston, or where they can rest on as healthy and solid foundation. It has trunk line railroad communication with all parts of the United States, and freight rates with the most favored of Southern cities. Two lines of railroads are owned and controlled in the interest of Anniston by its own citizens. *It has the best system of Water Works*, with the purest well water from three hundred feet below the surface, drawn from white quartz sand and gravel, and distributed through the city, with a pressure of 100 pounds to the inch, from a reservoir always full, protecting the city against fire and giving it the lowest rate of insurance. *The city is practically free from debt, and taxation limited to one-half of one per cent.* The means for education are the very best. Public Schools of a high grade are provided. One of the finest and best institutes for Young Ladies has been opened, and a College for Boys and Young Men, to which a School of Technology and Chemical Assay Laboratory have been added, is now nearly completed, and the best of teachers and professors secured for both. There are Churches for all denominations, and Hotel Accommodations that are not surpassed in Europe or America. The **ANNISTON INN** provides the quiet and comfort of the most luxurious home. The streets are wide, macadamized, and rolled hard and smooth for pleasant drives. **STREET CARS and DUMMY LINES** are being built to different parts of the city, and the **ELECTRIC LIGHT** service enlarged and improved, leaving nothing undone to promote the comfort of its citizens and maintain and increase the value of their property and profits of their business.

The **Anniston City Land Company**, or the **Bureau of Information**, will give any information desired when applied to, and invite all wishing a charming place in which to live, to do business or to make profitable investments, to visit

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CONSTRUCTION DEPARTMENT.

WE PUBLISH, every week, a list of every new factory, of whatever kind, projected anywhere in the South; every railroad undertaken, and every mining company organized. This information is always fresh, and, by enabling manufacturers to correspond with the projectors of such enterprises before their supplies of machinery have been purchased, is of great value. Manufacturers will find it to their interest to read this department carefully each week.

ALABAMA.

Anniston.—The Anniston Street Railway Co., previously reported, will purchase the necessary equipments at once.

Athens.—A building and improvement company will probably be formed.

Atalla.—The Atalla Iron & Steel Co. have purchased brick machinery.

Bessemer.—The Catholics have made arrangements to build a church.

Birmingham.—The Tennessee Coal, Iron & Railroad Co. are rebuilding the foundry of the Linn Iron Works, reported in this issue as burned.

Birmingham.—The Baxter Stove & Manufacturing Co., lately reported as to build 25 cottages, will build 50.

Birmingham.—Herman Scholze has received permit to lay gas pipes in Avondale.

Birmingham.—The Walker Land Co. will at once commence work on their dummy railroad, previously reported. It will extend from Eastlake to Gate City.

Birmingham.—W. P. Brewer has let the contract to erect a three-story brick building to Thomas Lappage.

Birmingham.—The Gate City Lumber & Improvement Co., lately reported as organized, have purchased machinery for their saw and planing mill.

Birmingham.—Charles Pearce & Co., of Indianapolis, Ind., lately mentioned as receiving the contract to build the courthouse, have broken ground.

Birmingham.—It is reported that the Southern Railway Supply Manufacturing Co., capital stock \$500,000, has been chartered by Fred. M. Sloss and others.

Birmingham.—It is stated that the Tennessee Coal, Iron & Railroad Co. and the Sloss Iron & Steel Co., having bought the right to manufacture steel by the Basic process of Jacob Reese, have selected sites at Ensley for mammoth steel works, and propose to begin work soon. Mr. Reese states that the American Basic Phosphate Co. will build fertilizer works with a daily capacity of 300 tons.

Birmingham.—The Brooklyn Building & Improvement Co., capital stock \$25,000, has been chartered by P. Byrne, E. H. Lopez and W. P. Pinckard.

Briarfield.—It is rumored that the property of the Briarfield Coal & Iron Co. has been purchased by the Woodstock Iron Co., of Anniston.

Calera.—A school is to be erected. The Calera Land Co. have donated a site.

Carrollton.—William Kirkpatrick will add shingle machinery to his saw mill.

Columbiana.—A saw mill will be erected near Columbiana by Frank Nelson, Jr.

Decatur.—The name of the company reported last week as being formed to build houses will be the Decatur Building Co. C. C. Harris, H. G. Bond and John D. Roquemore are interested.

Decatur.—The name of the \$100,000 stock company lately reported as formed to estab-

lish chain and architectural iron works is the Decatur Chain & Architectural Iron Works. The incorporators are W. H. Woolbridge, of Birmingham; W. W. Barnes, W. W. Littlejohn and H. S. Freeman.

Decatur.—A horse shoe nail factory is to be moved to Decatur from Chicago, Ill. A new company with a capital stock of \$100,000 will be formed. C. C. Harris, of Chicago, and others will be interested.

Decatur.—Car wheel and car spring works are to be moved to Decatur. The Decatur Land, Improvement & Furnace Co. can give particulars.

Decatur.—J. S. Pierce, of Savannah, Ga., will make efforts to form a company to establish artificial stone works.

Decatur.—Mr. St. John, of Evansville, Ind., has been prospecting with a view to locating a carriage and buggy factory.

Eulaton.—J. H. Duke will, it is stated, establish brick works.

Florence.—The American Refrigerator & Construction Co., of Harrisburg, Pa., have made a proposition to erect a 10 ton ice factory and a cold storage warehouse.

Florence.—Revelle Bros. will add a 10-ton ice factory to their steam laundry.

Forest, (P. O. Bolling).—The lumber mill of Flower & Peaglier, reported in this issue as burned, will be rebuilt.

Fort Payne.—Kansas City parties have bought 29,000 acres of coal, iron ore, agricultural and timber lands in De Kalb county, which they propose to develop and establish manufacturing enterprises.

Gadsden.—S. W. Riddle & Co., previously reported as to erect a large building, will probably build a corrugated iron one.

Gadsden.—The Kyle Lumber Co. have lately put some new machinery in their mill.

Jasper.—The hotel lately reported will be built by Jacob Kalley.

Jonesboro.—Shoemaker & Smithson have purchased the lumber mill of I. O. Jones.

Leeds.—There is talk of a nail factory being erected. If anything is done the Leeds Land & Manufacturing Co. can give particulars.

Marion.—The system of water works and the steam laundry, reported last week, will be built at the Judson Institute, and not at the Marion. A gas machine will also be erected. The Gilbert & Barker Manufacturing Co., 75 Maiden Lane, New York, have the contract.

Midway.—Z. F. Nance, of Eufaula, has been prospecting with a view to erecting a spoke and axe handle factory.

Mobile.—Adam Glass, previously reported as purchasing the machinery of a cotton mill, is considering removing it to Decatur.

Montgomery.—Barrett & Co. and W. D. Brown & Co. have consolidated their printing establishments, and will be known as the Montgomery Printing Co.

Montgomery.—The name of the company previously reported as to be formed to manufacture stone under the Pierce patent is the Montgomery Stone & Building Co. W. F. Joseph is president; J. P. Figh, vice-president; H. C. Davidson, secretary and treasurer, and A. L. Clapp, general manager.

Montgomery.—Work will probably be soon commenced on the barrel factory previously reported as to be built at Riverside. The Montgomery Land & Improvement Co. can give information.

Montgomery.—It is rumored that the mill of the Southern Cotton Oil Co., of Philadelphia, Pa., will be considerably enlarged.

Newcastle.—The Milner Coal & Railroad Co. will, it is stated, build about 95 coke ovens.

Prattville.—Messrs. Semple & Gayle, of Montgomery, are boring for ochre near Prattville.

Redding.—C. S. & Joseph Smith, of Birmingham, will mine iron ore.

Sheffield.—The Sheffield Sandstone Quarry Co., previously reported, have organized with C. J. Voorhees as president, and Belton Mickle, secretary and treasurer.

Sheffield.—The Catholics have secured a site to erect a church and convent.

Sheffield.—The Sheffield Steam Dyeing & Laundry Co. will build works shortly. Machinery has been ordered.

Sylacauga.—A limestone quarry will be opened by R. M. Fieet.

Sylacauga.—The Samples Lumber Co., formed by T. E. Blanchard, of Columbus, Ga., and others, have erected a saw mill with a capacity of 70 M-feet per day 8 miles east of Sylacauga, at a place to be called Hollins. The company have a capital stock of \$50,000.

Sylacauga.—Marble quarries have been purchased by a company, who will soon develop them.

Talladega.—Henry Burt is rebuilding his gin reported in this issue as burned.

Troy.—The Pike County Guano Co., previously reported, contemplate erecting a bone mill.

Union Springs.—A company has been formed to establish a spoke and handle factory.

Walker County.—The Alabama & Tennessee Coal & Iron Co., of Florence, will soon begin building their coke ovens.

Warrior Station.—It is stated that the Pierce Warrior Coal & Coke Co. will build 100 coke ovens; the Warrior Coal & Coke Co. 94 coke ovens, and the Watts Coal, Coke & Iron Co. 92 coke ovens.

ARKANSAS.

Bear.—The Cosmos Mining & Smelting Co. will make a test run of their ores, and if results are satisfactory will, it is said, erect a smelter at once.

Bear.—The Gold Dust Mining & Milling Co. has been chartered at Wymar, Neb., to develop mineral lands in Garland and Montgomery counties, Ark. The authorized capital stock is \$3,000,000.

Bentonville.—Benton county will build a \$5,000 jail.

Eureka Springs.—Brown & Webb will build a flour mill.

Eureka Springs.—A corn mill will, it is stated, be erected by the Knights of Labor.

Eureka Springs.—It is reported that a hotel to cost \$60,000 will be erected. If correct J. T. Waddill can give particulars.

Fort Smith.—It is reported that the Missouri Pacific Railroad Co. (office, St. Louis, Mo.) have let the contract for building their bridge, previously reported.

Fort Smith.—The parties reported last week as negotiating for the establishment of car works have made a proposition both to Fort Smith and Fayetteville to erect large works if 80 acres of land and \$5,000 are donated.

Helena.—The Citizens' Street Railway Co. will at once commence constructing their railroad.

Paragould.—The Paragould & Buffalo Island Railway Co., capital stock \$10,000, has been chartered to build a railroad from Paragould to the St. Francis river, 8 miles. The directors are Adolph Bertig, Henry Wrape, Samuel Bertig, Joseph Boykin and W. H. Sallis.

Pine Bluff.—James Converse has made a proposition to build a railroad to Monroe, La., and Alexandria, La.

Texarkana.—W. L. Whitaker, Benjamin Whitaker and associates have formed a \$50,000 stock company to build gas works, and will soon begin work.

FLORIDA.

Apalachicola.—It is reported that Peter Wise contemplates erecting a large saw mill.

Cleveland.—Joseph Williams, of Ogden, will establish a ship-yard, &c.

Gainesville.—H. F. Dutton & Co. have purchased machinery to start a moss factory.

Green Cove Springs.—Water works and an electric light plant are projected. J. S. Wright can probably give information when anything is done.

Jacksonville.—The American Refrigerator & Construction Co., of Harrisburg, Pa., may erect an ice factory and a cold storage warehouse.

Jacksonville.—James M. Schumacher, J. R. Tylen and E. W. Henck have incorporated the Florida Improvement & Construction Co., to build railroads, canals, bridges, improve lands, &c. The capital stock authorized is \$600,000.

Key West.—It is reported that J. Leon and Teodoro Perez will start a cigar factory.

Lake City.—Noyes S. Collins & Co., lately reported as to build water works, will also erect an electric light plant.

Lakeview.—A grist mill and furniture factory will be erected by Mr. Allport.

Mascotte.—A. R. Gano will add some new machinery to his saw mill.

Monticello.—McLin & Taylor purchased some new machinery for their lumber mill.

Ormond.—P. G. Jennings has lately erected a saw mill.

Ormond.—Mr. Mance is building the hotel previously reported. A gas machine and heating apparatus are now being purchased.

Palatka.—The Palatka, Lake Harris & Gulf Railroad is projected.

Pensacola.—The contract for building the city hall, previously reported, has been let to B. P. Pitt at \$33,000.

Plant City.—Nelson & Co. will start the manufacture of candies.

Sepeca.—J. D. Fay will probably start a brick-yard.

St. Marks.—A canning factory is projected.

Umatilla.—Mr. Taylor has purchased a saw mill and moved it to Umatilla.

Woodbridge.—The Woodbridge Manufacturing & Investment Co., reported last week as to succeed the South Florida Ice Co., will erect a cold storage room 50x50 feet, and a two-story orange wine factory 75x120 feet. Will also can and preserve fruit.

GEORGIA.

Albany.—A new church will be built by the Methodists.

Atlanta.—The bills previously reported as introduced in the legislature to incorporate the Ore Belt Railroad Co. and to allow Dalton to operate water works, have become laws.

Atlanta.—A bill has been introduced in the legislature to incorporate the Catcoca Springs Co.

Atlanta.—The Nolta Consolidated Marble, Iron & Talc Co., capital stock \$1,000,000, has been chartered by Isaac Kinsey, of Indianapolis, Ind.; A. G. Kinsey, of California, and J. R. Tolleson, of Atlanta. The objects of the company are to mine and manufacture iron ore, marble, talc, &c., in North Georgia.

Augusta.—Proposals will shortly be wanted for building the opera house previously reported. McMurphy & Story can give information.

Brunswick.—H. E. Barnes has contracted for the erection of an oyster packing establishment.

Brunswick.—The Baptists have received plans for their new church. It will cost about \$22,000.

Cartersville.—John Baker will develop the silver on his land 9 miles from Cartersville.

Clifton (P. O. Decatur).—George W. Benson, of Marietta, and N. A. Pratt, of Atlanta, are erecting a cotton-seed oil mill.

Columbus.—Walker Bros. will develop an ochre mine. Are receiving estimates for milling machinery.

Columbus.—T. E. Blanchard and associates, reported last week as asking for permit to erect an electric light and power plant, have incorporated the Columbus Electric Light Co., with a paid in capital stock of \$12,000.

Conyers.—The name of the company reported last week as to test a gold mine is the Conyers Gold & Granite Co. J. C. Barton is president, and Grier Quigg, secretary and treasurer.

Dahlonega.—The Dahlonega Real Estate & Building Co., capital stock \$20,000, has been chartered by Joseph M. Gurley, A. Rudolph and others.

Dahlonega.—The Lumpkin County Land & Improvement Co. has been incorporated by William A. Charters, W. S. Wilson, F. W. Hall, A. C. Johnson, R. A. Anderson and others. The capital stock is limited to \$500,000.

Darien.—A brick-yard is to be started soon near Darien.

Fort Valley.—There is talk of forming a stock company to build a system of water works. If anything is done, S. B. Burr can probably give information.

Griffin.—W. H. Lyon will probably have a gas well sunk on his land.

Griswoldville.—J. R. Van Buren will probably develop kaolin deposits.

Macon.—Stevens Bros. will not move their pottery works to Macon, as stated last week, but will build new works at Macon. They have selected a site.

Macon.—W. H. Moxley & Co., previously reported as to rebuild their burned planing mill and box factory, have purchased a site for their new works.

Macon.—The Hatcher Iron Wagon Co., previously reported, have leased the plant of the Collins Carriage Manufacturing Co. and have ordered a large amount of new machinery. They will employ about 100 hands.

Macon.—A company is being formed to erect an incandescent electric light plant. The capital stock will probably be \$40,000.

Rome.—The East Rome Town Co. will soon develop the iron ore on their property.

Waco.—It is reported that J. W. Jeter contemplates building a hotel.

Walker County.—Charles Daugherty, of Jacksonville, Fla., is reported as purchasing iron ore lands for Pennsylvania parties who will develop.

Waynesboro.—The Waynesboro Oil Mill Co. will rebuild next spring their ginney, lately reported as burned.

West Point.—The Rosedale Manufacturing Co. will, it is reported, put in 84 new looms and 5,000 spindles.

West Point.—The West Point Manufacturing Co. have let the contract for furnishing machinery for their new cotton factory, previously reported, to Brown & King, of Atlanta.

KENTUCKY.

Ashland.—The Episcopalians will build a church.

Ashland.—The Spargur Lumber Co. are erecting a planing mill.

Bowling Green.—A committee, with H. E. Jenkins as chairman, has been appointed to receive bids for the erection of the electric light plant reported last week.

Covington.—The city council contemplate introducing water gas in the city.

Covington.—The Dayton & Cincinnati River Transfer Co., capital stock \$5,000, has been chartered by George M. Brown and others.

Georgetown.—\$8,000 has been subscribed towards organizing a company to build the water works lately reported. John A. Bell can probably give information.

Hopkinsville.—A stock company is being formed to erect the ice factory lately reported. W. G. Perry can give particulars.

Louisville.—The Louisville Coffin Co., previously reported as to build new works, are erecting 2 five-story buildings, each 50x140 feet, dry-house, etc.

Louisville.—Burch & Norris have purchased the O. K. Pork Packing House for \$18,000.

Louisville.—Vaughn & Co. will erect a two-story brick tobacco factory corner of Seventh and York streets. The building will cost \$3,400.

Louisville.—W. H. Metz & Co. are enlarging their stove factory.

Louisville.—J. Schwartzwalder & Son are building a new and larger stove factory.

Louisville.—Proposals for building a hotel at French Lick Springs will be received until October 27 by John C. Howard.

Newport.—The city council have passed the ordinance granting the Union Bridge Co. the right to build a bridge over the Ohio river from Newport to Cincinnati. The bridge is estimated to cost \$1,500,000.

Owensboro.—P. J. Miller will, it is stated, probably build a hotel.

Rockcastle County.—A saw mill will be built by R. T. Elkin, of Elkin. The daily capacity will be 10 M feet.

Tompkinsville.—It is rumored that M. Duke will build a woolen mill.

Winchester.—The Little Britain Turnpike Road Co., capital stock \$15,000, has been formed by B. H. Jones, S. D. Goff and I. C. Vaumeter, Jr.

LOUISIANA.

D'Arbonne.—J. F. Brewster, whose mill and gin were lately mentioned as burned, will rebuild.

Fausse Point (P. O. Loreauville).—Jules Verrett has erected a three-roller sugar mill.

New Iberia.—The New Iberia Public Hall Association have commenced work on a building, 50x80 feet, to cost about \$10,000, previously reported.

New Iberia.—A Vallet is erecting a small cane mill near New Iberia.

New Orleans.—It is stated that the American Oil Trust Co. have purchased a site at South Port to build wharves and warehouses.

New Orleans.—The New Orleans & Northeastern Railroad Co., previously reported as to build new wharves, will also build a grain elevator.

New Orleans.—Poitevant & Favre will at once commence work on their hotel at Abita Springs, previously reported.

New Orleans.—The Annandale Cattle Co., capital stock \$100,000, has been chartered by Hugh F. McElroy and others. They have the privilege of operating stock yards.

New Orleans.—Forcross & Bro., of Boston, Mass., have the contract to erect a 1½-story stone building on Howard avenue for the Annie Howard Memorial Library. It will cost \$96,000.

MARYLAND.

Annapolis.—The Annapolis, Washington & Baltimore Railroad Co. will, it is said, sell out to the Baltimore & Drum Point Railroad Co.

Baltimore.—Frederick Stamp will erect six two-story brick houses on Etting street near Pressman.

Baltimore.—J. A. McGregor will erect 31 two-story brick houses near Tenant and Winchester streets.

Baltimore.—The Lebrandt & McDowell Stove Co. will build a four-story brick warehouse on Pratt street near Light.

Baltimore.—The city has leased a site corner of Patterson Park avenue and McElderry street, 106x155 feet, on which to build a school-house.

Baltimore.—A two story brick school-house will be built corner McElderry street and Duncan alley by Thomas Herron.

Baltimore.—C. H. Callis will build four three-story houses on Preston street and four of three stories on Biddle street.

Baltimore.—A. Roselta will erect a four-story brick warehouse on Greene street near Lexington.

Baltimore.—A new synagogue is to be erected. Isaac Strouse can give particulars.

Baltimore.—The Baxter Electric Motor & Manufacturing Co., have increased their capital stock from \$200,000 to \$500,000, previously reported.

Baltimore.—The Tunis Lumber Co., capital stock \$250,000, has been chartered by William W. Tunis, Theophilus Tunis, Edwin L. Tunis, Henry Clay Tunis and Samuel Eccles, Jr.

Baltimore.—Jacob Hecht will build five three-story houses on Cider alley. H. L. Franz will build two three-story houses on Monument street.

Baltimore.—Frank Herbert will build 12 two story houses on Lancaster street near Luzerne, and seven houses on Luzerne street.

Baltimore.—J. M. Getz will erect 14 two-story brick houses on Ensor street north of Hoffman, and seven on Holbrook street near Hoffman.

Catonsville.—The Catonsville Casino Club will be chartered to erect a club building. H. A. Nagle has received the contract.

Washington, D. C.—George B. Whiting will build two brick dwellings at 116 and 118 Maryland avenue to cost \$8,000.

Washington, D. C.—P. Shipman will erect a \$6,000 brick dwelling at 1310 Q street northwest.

Washington, D. C.—The Union Stock Yards Co., of Baltimore, will build stock yards at a cost of \$12,000.

Washington, D. C.—Lewis H. Emmert will build two dwellings on Rhode Island avenue to cost \$16,000. Mrs. E. M. Peet will erect a \$13,000 dwelling at 2018 O street.

MISSISSIPPI.

Greenville.—Deaton & Skinner contemplate forming a company to build a street railroad.

Vicksburg.—The Warren Oil Mill (cotton seed) has lately been overhauled and improved.

NORTH CAROLINA.

Asheville.—Richmond Pearson will build a fine residence to cost about \$80,000.

Brevard.—The Carolina, Knoxville & Western Railroad Co. has been voted a subscription of \$50,000 by Transylvania county.

Charlotte.—A fire-alarm system is being erected by the Richmond Electric Fire Alarm Co., of Richmond, Va.

Durham.—J. T. Pinnix & Co. have let the contract for a five-story prize factory, 120x140 feet.

Egypt.—Some old coal mines are being reopened and will be developed.

Fayetteville.—W. O. Lockamy contemplates starting a mattress factory.

Fayetteville.—Arrangements are being made, it is said, to start a pants factory.

Franklin.—A. L. Hall has lately erected a new gin.

Franklin.—A flour and corn mill has lately been erected by H. G. Hall.

Henderson.—The Richmond & Danville Railroad Co. have purchased a site for a passenger and freight depot.

Henderson.—Efforts are being made to secure the establishment of a large bonded tobacco warehouse with a capacity of 3,000 hhds.

Hendersonville.—The water works reported last week as projected will cost about \$12,000. A sewerage system will be constructed also. James D. Davis can probably give information.

Hillsborough.—There is talk of a cotton factory being erected. Joseph A. Harris can give information if anything is done.

Indiantown.—F. Rhem & Sons contemplate building a tram road from the Georgetown & North Carolina Narrow Gauge Railroad to Indiantown, 12 miles.

Jacksonville.—Mr. Lamb, of New York, is purchasing timber lands with a view to building lumber mills.

Leaksville.—A large brick tobacco warehouse is being erected by T. R. Pratt & Co.

Monbo.—The Monbo Manufacturing Co. will put in a new water wheel and new looms, previously reported.

Raleigh.—Van Gunder & Young, of Philadelphia, Pa., will start marble works. George B. Hiss will be manager.

Raleigh.—Wellis H. Whitaker is rebuilding his gin reported in this issue as burned.

Raleigh.—The North Carolina Railroad Co. are arranging to commence work on their brick depot, previously reported.

Raleigh.—John H. Winder and Joel D. Whitaker are purchasing machinery to manufacture tiles, brick, &c. They are probably interested in the Raleigh Brick & Tile Co., previously mentioned.

Raleigh.—Some new machinery has been put in the candy manufactory of A. D. Royster & Bro.

Raleigh.—Efforts are being made to secure the extension of the Nashville branch of the Wilmington & Weldon Railroad (office, Wilmington,) to Raleigh.

Raleigh.—There is talk of building a narrow gauge railroad from Raleigh to Fayetteville.

Reidsville.—The saw mill of J. H. Walker & Co., reported last week as burned, will probably be rebuilt.

Salisbury.—It is probable that a company will soon be formed to erect the cotton factory previously reported. J. J. Bruner can give information as soon as anything is accomplished.

Smithville.—The Consolidated Land & Lumber & Transportation Co., capital stock \$500,000, has been chartered by Jerome B. Graybill, Martin Van Buren, Oscar S. Stearns, C. Calver Egerton, Edwin D. Worcester, Jr., and others. Will manufacture lumber, &c.

Tarboro.—A city hall and armory to cost from \$7,000 to \$12,000 is contemplated.

Thomasville.—An electric light plant is reported to be erected soon.

Waynesville.—Haywood county has voted a \$100,000 subscription to the Carolina, Knoxville & Western Railroad.

Wilkesboro.—Mr. Wade has received the contract to build six miles of railroad.

Wilmington.—A cedar-ware factory is reported to be established.

SOUTH CAROLINA.

Camden.—H. G. Garrison will rebuild his gin reported in this issue as burned.

Columbia.—C. C. Habenicht has been negotiating for the franchise to erect the electric light plant previously reported.

Columbia.—The Jeter & Boardman Water & Gas Association, of Macon, Ga., are negotiating for the Columbia Water Works.

Fort Mill.—The Fort Mill Manufacturing Co., previously reported, have ordered machinery for their mill.

Georgetown.—P. E. Twiggs and L. S. Ehrich contemplate erecting a planing mill.

Greenville.—The Piedmont Manufacturing Co. are remodeling and improving their cotton mill, putting in 300 horse-power engine, boiler, &c.

Rock Hill.—A \$100,000 land and improvement company will be chartered by W. B. Wilson, Jr., J. M. Cherry, T. A. Crawford and others.

Sampit.—P. D. Bourne has erected a saw mill, grist mill and cotton gin.

Sumter.—Jeter & Boardman, of Brunswick, Ga., previously reported as to build water works, are preparing to commence work.

Sumter.—W. A. Jeter, of Brunswick, Ga., contemplates erecting a cotton compress.

TENNESSEE.

Athens.—A subscription of \$22,000 has been voted to the Athens & Tellico Railroad.

Bristol.—Brown Bros., lately reported as doubling the capacity of their carriage factory, will, it is stated, build a brick factory next year.

Bristol.—The corporate authorities of Bristol and Goodson, Va., will have Howard Murphy make surveys to ascertain the best place for obtaining a supply of water for the two towns.

Chattanooga.—The Chattanooga & Suburban Street Railway Co. has been incorporated by J. D. Lindsay, F. C. Hoyt, J. M. Davis, M. A. Davis and Charles E. Stivers.

Chattanooga.—The Chattanooga Electric Street Railroad Co. has been incorporated to build the street railroad reported last week.

Chattanooga.—There are prospects of a large tobacco factory being established.

Chattanooga.—Stivers & Woodburn are reported as again enlarging their planing mill.

Chattanooga.—There is talk of Kroft, Mayer & Hunter moving their saddlery and hardware manufactory from Cincinnati, O., to Chattanooga.

Chattanooga.—Proposals for building brick and pipe sewers will be received until October 27 by Robert Hooke.

Chattanooga.—Thomas Sully & Co., of New Orleans, La., have prepared plans for the large hotel previously reported to be erected on Lookout Mountain by the Lookout Mountain Co.

Chattanooga.—A. H. Moers, of Elyria, O., contemplates moving his furniture factory to some point in the South.

Clarksville.—A snuff factory is to be started.

Coal Creek.—E. R. Chapman, of New York, reported last week as purchasing and to extend the railroad of the Coal Creek Coal Co., has let the contract to extend it 3½ miles to McDonald, Shea & Co.

Columbia.—The Columbia Cotton Mills have put in Jenney electric light machinery.

Elizabethton.—It is rumored that Messrs. Teegarden and Tinney, of Chicago, Ill., have purchased sites to build an iron furnace near Elizabethton and one at Carter's Depot.

Jackson.—It is proposed to form a company with \$100,000 capital stock to establish manufactories. W. P. Robertson and J. C. Smith are interested.

Johnson City.—A. B. Bowmar will erect a two-story building, 25x100 feet, and G. A. Reeves will erect one of the same size. P. C. Hoss has the contract for the brick work of the latter and for a building for S. T. Harris.

Johnson City.—Major Adams has contracted to build part of the Charleston, Cincinnati & Chicago Railroad.

Johnson City.—It is reported that brick works will be started by Charles M. Carpenter.

Knoxville.—Richmond (Va.) parties have been prospecting with a view to establishing

a tobacco factory. If anything is done, the secretary Chamber of Commerce can give particulars.

Knoxville.—S. S. Ramsey has received the contract to drill a well for the Knoxville Petroleum & Fuel Co.

Knoxville.—It is stated that the Lebanon Marble Co., reported last week as formed to develop marble quarries, contemplate erecting a marble mill.

Knoxville.—John A. Pentland, of Cincinnati, O., and others have formed a company to establish large soap works. They have purchased the pork factory property of I. Fanz. The capital stock will, it is said, be \$200,000.

Knoxville.—There are prospects of a new company being formed to build gas works. If anything is done the secretary Chamber of Commerce can give information.

McMinnville.—W. T. Murray and associates have been granted the privilege to lay pipes for furnishing natural gas, previously reported.

Memphis.—J. A. Forrest & Son have received the contract to build levees at Moon Landing and New Hope.

Memphis.—John Johnson and N. Hill will rebuild their cotton warehouse.

Milan.—Mabley & Co. talk of erecting a roller flour mill.

Milan.—A creamery will probably be established. W. A. Wade can probably give particulars if anything is done.

Morristown.—H. L. Witt will enlarge his buggy factory.

Morristown.—The Gregg Manufacturing Co. will increase their capacity.

Morristown.—A company is being formed to build a mill. C. D. Merrit, Warm Springs, N. C., will be interested.

Nashville.—The Laurel Hill Manufacturing Co. has been incorporated to engage in mining and manufacturing by E. W. Cole, W. C. Jones, J. H. Fall, Henry S. Bassett and John C. Cameron.

Sevierville.—The mill of the Sevierville Lumber Co., reported in this issue as burned, will at once be rebuilt.

South Pittsburg.—The South Pittsburg Terra Cotta Co. will put in additional machinery next spring.

Sparta.—Edgar Smith, of Murfreesboro, has leased a spoke and handle factory and will put it in operation.

Tullahoma.—Machinery has, it is reported, been purchased for a tannery.

Whitesburg.—W. A. Rader & Co. have purchased the flour mill of Kirkpatrick & Rader for \$4,210. They will refit it with roller machinery.

Winchester.—A large stove factory will be built by Mr. Walton, of Wisconsin.

Winchester.—J. S. Vaughn & Co., previously reported as to move their box factory from Graysville, Ill., to Winchester, have commenced work on their new factory.

TEXAS.

Atlanta.—The city council will probably issue bonds to build a city hall and market house.

Beaumont.—The Beaumont Lumber Co. have put in a steam log roller.

Beaumont.—The Farmers' Alliance of several counties will hold a meeting November 17 to form a co-operative saw mill and lumber manufacturing company. W. B. Crawford can give information.

Bells.—The Missouri Pacific Railroad Co. will build a new passenger and freight depot.

Blooming Grove.—The St. Louis, Arkansas & Texas Railroad Co. (office, St. Louis, Mo.) will lay out a new town 5 miles west of Blooming Grove.

Brenham.—The Lutherans will build a church.

Brownsville.—Efforts are being made to secure the building of a railroad from Corpus Christi to Brownsville.

Eagle Pass.—The Rio Grande Bridge & Tramway Co., P. Ornelas, of San Antonio, president, have commenced work on their bridge, which will be 1,900 feet long, and a street railroad.

El Paso.—The mayor will receive proposals for building a city hall two stories high, 40 to 45 feet wide and from 75 to 100 feet long, estimated to cost \$15,000.

Fort Worth.—The Spanish Moss Manufacturing Co., F. P. Moore, manager, are now erecting the machinery for their horse collar factory, previously reported.

Fort Worth.—The Fort Worth Printing Co., capital stock \$20,000, has been incorporated by S. P. Greene, J. H. Millican, A. A. Selchworth, Charles A. Noble, S. M. Whitsill and others.

Fort Worth.—The Granbury Stone Co., capital stock \$10,000, has been incorporated by G. B. Cotton, B. B. Paddock and A. R. Zalmskie.

Greenville.—Messrs. Collier, Byrd, Wyse and others have formed a company to build a street railroad and will shortly commence work.

Greenville.—Messrs. King, Lasater and others, previously reported as forming a company to build a street railroad, will soon commence work.

Higgins.—Clarkson & Dowden will build a two-story hotel.

Hyatt.—Rice Bros. contemplate erecting a large saw mill.

Jefferson.—The gauge of the East Line & Red River Railroad from Greenville to Jefferson will be changed to the standard.

Laredo.—The International Bridge & Tramway Co., of San Antonio, P. Ornelas, president, will build the bridge and street railroad, previously reported. The bridge is to be 1,100 feet long and 32 feet wide.

Milano.—The Milano Co-operative Association has been formed to operate a mill and gin by C. F. Ford and others.

Palo Pinto.—Dalton Bros. are boring for petroleum 6 miles from Palo Pinto.

Rusk.—The Old Alcalde Iron Furnace owned by the State has been overhauled and repaired and put in blast.

Sunset.—N. D. Perkins & Co. have rebuilt their gin lately reported as burned.

Tyler.—The Methodists are preparing to build the church to cost \$20,000, previously reported.

Waco.—The St. Louis, Arkansas & Texas Railroad Co. will shortly build a roundhouse.

Wallerstville.—B. L. Reid has the contract to erect several brick buildings.

Weatherford.—John De Galleford, of Lacrosse, Wis., has made a proposition to build water works. If accepted, he will begin work at once.

Weatherford.—Work on the passenger depot and the roundhouse for the Atchinson, Topeka & Santa Fe Railroad, previously reported, will be commenced in a few days.

Weiss Bluff (Jasper County).—The Neches Tramway Co. has been chartered by George W. Smyth, J. G. Smith and W. H. Smyth. The capital stock is \$20,000.

VIRGINIA.

Chase City.—Vaughan & Sarvey, of Richmond, contemplate building a tobacco warehouse, but have not fully decided.

Hicksville.—The Atlantic & Danville Railroad Co. will complete their railroad themselves.

Hillsville.—Carroll county has voted a subscription of \$100,000 to the New River & Chambers Valley Railroad.

Lynchburg.—Thomas Poole has been awarded the contract to build about 2½ miles of turnpike road. He has commenced work.

Lynchburg.—D. Moses will erect five three-story brick houses.

Portsmouth.—The Portsmouth Street Railroad Co. have let the contract for building their road, previously reported.

Pulaski City.—Mr. Hawkes is opening an iron ore mine 6 miles from Pulaski City for Clarence M. Clark.

Richmond.—Proposals for erecting the two school buildings at Manchester will be received until November 1 by Walter R. Higham, room 15, Shafer's Building.

Roanoke.—The city will decide by a popular vote on October 29 whether or not to issue \$12,000 of bonds to erect an electric light plant.

Roanoke.—The Norfolk & Western Railroad Co. will build 10 new iron bridges along their railroad, previously reported.

Roanoke.—It is probable that arrangements will soon be made for the building of the Roanoke Rolling Mill, previously reported.

Roanoke.—The Roanoke Cotton Mills will soon begin work on their mill, previously reported, if a site is donated.

Russell County.—It is stated that the Charleston, Cincinnati & Chicago Railroad Co. will lay out a town at a point where their road will cross the Clinch Valley Railroad.

Salem.—The Krise Iron Co. has been organized with J. C. Langhorne as president; P. A. Krise, secretary and treasurer, and Jed Hotchkiss, mining engineer. The company has purchased and will develop the Swecker iron ore property in Wythe county. The capital stock is to be not less than \$100,000 nor more than \$500,000.

Trapp.—The mill reported last week is a grist mill and is being erected by R. B. Grimes.

WEST VIRGINIA.

Clarksburg.—There is talk of an electric light plant being erected. Lee H. Vance can probably give information as soon as anything is done.

St. Mary's.—The Timber, Land & Mercantile Co., previously reported, will build a saw mill.

Volcano.—The United States Oil Co., recently organized at Wheeling, have leased land near Volcano and will bore for oil and gas.

Wheeling.—It is reported that Henry Schmulbach will build a large hotel. If true, E. W. Wells, architect, can give information.

Wheeling.—It is reported that another pottery works will be established. If correct, R. W. Hazlett can probably give information.

BURNED.

Atkins, Ark.—The carriage and wagon factory and planing mill of Weaver & Sons; loss \$5,500.

Birmingham, Ala.—The foundry of the Linn Iron Works, owned by the Tennessee Coal, Iron & Railroad Co.; loss \$5,000. Is being rebuilt.

Chauncey, Ga.—The dry kiln of A. B. Steele.

Dallas, Texas.—The foundry of Louis Duffy; loss \$2,000.

Forrest (P. O. Bolling).—The lumber mill of Flowers & Peagler; loss \$16,000. Will be rebuilt.

Gretna, La.—The large steam ginney of H. P. Fornett; loss \$40,000.

Jeanerette, La.—The saw mill of Milmo & Stoeke damaged \$1,000 by fire.

Laurinburg, N. C.—A. Farley, reported last week as having his gin burned, lost a saw and grist mill also.

Machipongo, Va.—The saw and planing mill of R. G. Dennis & Son; loss on machinery \$4,000.

Norfolk, Va.—The Aetna Iron Works damaged \$3,000 by fire.

Norfolk, Va.—The factory of the Norfolk Tinware Manufacturing Co.; loss \$20,000.

Pattersonville, La.—The cooper shop and warehouse of Frank Morey.

Perryman's, Md.—The canning factory of B. V. Preston; loss \$5,000.

Salem, N. C.—The saw mill of Erastus M. Light at Waughtown.

Sevierville, Tenn.—The mill of the Sevierville Lumber Co.; loss \$3,000. Will be rebuilt at once.

Springdale, Ark.—The evaporator of the Springdale Canning Co.

Thornton, W. Va.—The saw mill of J. C. Painter & Bro., near Thornton, wrecked by an explosion.

Warthen, Ga.—The saw and grist mill and gin of T. Warthen & Co.

The gins of Willis Winkler, 4 miles from Raleigh, N. C. (is rebuilding); George Fulmer, near Selma, Ala.; D. C. Day, Irwinton, N. C.; C. H. Smith, Greenville, Miss.; John Till, Bragg's, Ala.; Henry Burt, 3 miles from Talladega, Ala. (is rebuilding); J. H. Bradley, Jackson Station, Ala.; W. W. Suber, Newberry county, S. C.; John D. Bethea, Marion, S. C.; J. D. Browder, Demopolis, Ala.; R. C. Cook, 5 miles from Covington, Ga.; W. M. West, Sylvania, Ga.; (on) Swift Water Plantation, Greenville, Miss.; Percy Fountain, Monteville, Ala.; J. W. Brock, Okolona, Ark.; J. D. Browder, Prairieville, Ala.; Thomas H. Rowe, Dublin, Ga.; O. J. Massee, Marshallville, Ga.; Benjamin Busche, Benton, Miss.; Lizzie Wright, Pine Level, Ala.; Mrs. L. A. Printups, Union Springs, Ala.; Neely & Neely, Cabot, Ark.; Hamp Tell, Butler county, Ala.; E. J. McKenzie, Butler county, Ala.; L. C. Litesey, Marion, Ala.; M. G. Desmond, 3 miles from Winona, Texas; H. C. Turley, Natchez, Miss.; B. H. Williams, Columbus, Ga.; Allen W. Jones, Midville, Ga.; James Hamilton, Dearing, Ga.; Louis Dantzler, near Vance's, S. C.; H. G. Garrison, Camden, S. C. (will rebuild); David Thompson, near Vance's, S. C., and Mrs. J. N. Adams, Marlborough, N. C., have been burned.

Erecting Planing Mill.

ASHLAND, KY., Oct. 17, 1887.

Editor Manufacturers' Record:

Planing mill is now in course of construction to supply our wholesale trade. Capacity at present one car-load flooring, siding or ceiling per day, and to increase as demand requires. Also established with it a storing yard for wholesale poplar trade in rough lumber. SPARGUR LUMBER CO.

Erected Sugar Mill.

NEW IBERIA, LA., Oct. 15, 1887.

Editor Manufacturers' Record:

The New Iberia Public Hall Association, as reported some time since to build a hall, have commenced work on a brick edifice 50x80 feet, to cost about \$10,000. Mr. Jules Verrett, Fausse Pointe, La., has erected a three-roller sugar mill. Mr. A. Vallet is putting up a cane mill near this place for the manufacture of syrup on a small scale. J. P. SUBERBILLE.

GAINESVILLE, FLA., Oct. 15, 1887.

Editor Manufacturers' Record:

We have bought the machinery, and part of it is on the ground, to start a moss manufactory. The capacity is two tons per day. It is a new machine; therefore an experiment. If it is a success we shall put in four machines. We also run 20-roller gin to gin cotton, turning out 30 to 35 bales per day. H. F. DUTTON & CO.

BROOKSIDE, W. VA., Oct. 18, 1887.

Editor Manufacturers' Record:

I have built a burr mill and just have started it. WM. FRUSH.

MACHINERY WANTED.

(If you desire to purchase machinery of any kind consult our advertising columns, and if you cannot find just what you wish send us particulars as to the kind of machinery needed. We will make your wants known free of cost, and in this way secure the attention of machinery manufacturers throughout the country. You will thus get all information desired as to prices, &c.)

A Double Cut off machine and a dovetailing machine, both second-hand, are wanted by James B. Hill, Rome, Ga. He also wants best make of fan for taking up shavings in planing mill.

Barrel Hoops.—The Ocala Lime Co., Ocala, Fla., want to purchase large quantities of barrel hoops.

Electric Light Machinery.—The city council of Bowling Green, Ky., have appointed a committee, with H. E. Jenkins as chairman, to receive bids for erecting an electric light plant.

Elevator and Screws or a prize factory are wanted by T. L. Love, Raleigh, N. C.

Ice Machinery.—W. G. Perry, Hopkinsville, Ky., wants prices of machinery for ice factory.

Iron Bridge.—The Board of Commissioners, Rome, Ga., W. G. Gammon, chairman, will receive until November 7 proposals for building an iron bridge 297 feet long by 20 feet wide, to consist of one draw span and one fixed span.

Iron Pipe.—The Coleman Water Works Co., Coleman, Texas, want to correspond with manufacturers of iron pipe.

Machinists' Tools, &c.—W. V. Elliott, Edenton, N. C., wants prices on belting and all machinery needed for a repair machine shop.

Machinery for sawing and splitting stove wood 12 to 15 inches long is wanted by B. Jones, Montgomery, Ala.

Saw and Planing Machinery are wanted by the Rockland Lumber Co., Rockland, Texas.

Enlarging Flour Mill.

LEXINGTON, KY., Oct. 14, 1887.

Editor Manufacturers' Record:

Expect to make our mill a 500-barrel mill. Changes now under way. The latest manufactory here is a chair factory.

LEXINGTON ROLLER MILLS CO.

SAN ANTONIO, TEXAS, Oct. 12, 1887.

Editor Manufacturers' Record:

The International Bridge & Tramway Co., myself as president, will build a bridge 1,100 feet long and 32 wide, and a line of street cars connecting the two Laredo cities over the bridge. The line on Mexican side already built and in operation. I am also the president of the Rio Grande Bridge & Tramway Co. to build a bridge 1,900 feet at Eagle Pass, Texas, connecting with Piedras Negras, Mexico; also will build street car line as at Laredo. Work of construction already begun. P. ORNELAS, Prest.

MAYSVILLE, KY., Oct. 12, 1887.

Editor Manufacturers' Record:

We will remove our distillery—Limestone Distillery—and make improvements, &c., but same capacity as before.

J. H. ROGERS & CO.

GALVESTON, TEXAS, Oct. 10, 1887.

Editor Manufacturers' Record:

Our Board of School Trustees are making arrangements to build a brick school-house during the present scholastic year at a cost of from \$30,000 to \$35,000.

FORSTER ROSE.

BAIRD, TEXAS, Oct. 7, 1887.

Editor Manufacturers' Record:

I have just erected a cotton gin and corn mill; both doing good work. J. S. FOY.

KYLE, TEXAS, Oct. 11, 1887.

Editor Manufacturers' Record:

The Kyle Water Co. has been chartered. C. L. SLEDGE, Secy.

Street Railroad.

FERNANDINA, FLA., Oct. 14, 1887.

Editor Manufacturers' Record:

A street railroad is contemplated in this city, and application for right of way made by Gideon Palmer and associates.

J. H. EDWARDS.

To Mine Iron Ore.

ROME, GA., Oct. 13, 1887.

Editor Manufacturers' Record:

We have a deposit of very fine iron ore on our property which we expect to develop soon. The quality is excellent and there are good indications of a large quantity. The mine is in East Rome and immediately on East Tennessee, Virginia & Georgia Railroad.

H. D. COTHRAN,
Prest. East Rome Town Co.

Erecting Grist Mill.

TRAPP, VA., Oct. 15, 1887.

Editor Manufacturers' Record:

I am building a two-run grist mill at this place. I have a water-power of 31 feet fall, equal to 12 horse power. The mill is to be propelled by a 10-inch Success water wheel.

R. B. GRIMES.

Will Rebuild Lumber Mill.

SEVIERVILLE, TENN., Oct. 15, 1887.

Editor Manufacturers' Record:

Our mill was burned last week, besides about 200,000 feet poplar lumber. We are going to rebuild as fast as possible.

SEVIERVILLE LUMBER CO.

Rebuilding Iron Foundry.

BIRMINGHAM, ALA., Oct. 15, 1887.

Editor Manufacturers' Record:

Our foundry was destroyed by fire and we are now rebuilding. LINN IRON WORKS.

Will Develop an Ochre Mine.

COLUMBUS, GA., Oct. 13, 1887.

Editor Manufacturers' Record:

We have purchased a mineral paint (ochre) property and will begin development within 30 days. When we get in estimates for the milling machinery we will give contract for one or two ochre mills. The machinery will be run with water power. WALKER BROS.

LONGVIEW, TEXAS, Oct. 14, 1887.

Editor Manufacturers' Record:

The Texas, Sabine Valley & Northwestern Railway Company was chartered October 3, with a capital of \$1,000,000, all of which has been subscribed, chiefly in New York. The route is from Longview down the Sabine valley to Sabine lake, and north from Longview to Paris or some other point in Lamar county on Red river, through the heart of the timber region of East Texas. This company will absorb the constructed part of the Galveston, Sabine & St. Louis Railway, 22 miles from Longview to Tatum. From Tatum to Carthage, 16 miles, is being built by the Texas Construction Company, and will be in operation by January 1, 1888. The next sections to be built will be south to a connection with the Houston, East & West Texas Railway, and north to a connection with the St. Louis, Arkansas & Texas Railway. This will probably be done in 1888. The work of construction is done by the Texas Construction Company, of which Maj. Richard J. Evans, of Longview, Texas, is the superintendent. RICHARD J. EVANS.

MILLEDGEVILLE, GA., Oct. 15, 1887.

Editor Manufacturers' Record:

Messrs. Steven Bros. are not going to move their pottery business, but will erect a large industry of like character in or near Macon. We represent them and are now examining and passing title for them.

WHITFIELD & ALLEN.

A Suggestion as to the Mineral and Timber Exhibit at the Piedmont Fair.

[Editorial correspondence MANUFACTURERS' RECORD.]

ATLANTA, GA., Oct. 17, 1887.

The exhibit of the mineral resources of the Piedmont section at the Atlanta Fair is the finest display of the mineral wealth of any section ever made in America. It is not the largest in volume, but in variety and as a well-rounded whole free from things of no value, it is a magnificent display. Here are shown almost every variety of iron ore, even the best of Bessemer steel ores, many of which have only been found very recently, the finest marbles in America, if not in the world, gold, silver, diamonds, garnets, rubies, sapphires, and other gems too numerous to mention, coals, slates, granites, fire-brick clay, glass sand, &c. Northern and Western visitors have been utterly astounded at the South's vast mineral and timber resources as illustrated here.

The mineral and timber exhibit ought to be carried North and displayed in some large hall in Philadelphia, New York and Boston for two or three weeks or a month at each place. If the Southern towns and railroads making this display would unite to do this, the cost to each would be comparatively small, while the good that would be accomplished would be almost incalculable. It would show the North in the most convincing possible manner the wonderful wealth of the South. It would, in fact, do more good than this exposition itself, as it would be seen by thousands of Northern people where hundreds now see it. R. H. E.

Erecting Wood-Working Factory.

MARSHALL, TEXAS, Oct. 16, 1886.

Editor Manufacturers' Record:

We are erecting a factory to do all kind of wood-work, such as moulding, railings, brackets, doors, sash, blinds, counters, shelving, store fronts, posts, etc.

MCKIEL & JOHNSON.

Will Build Orange Wine Factory.

WOODBIDGE, FLA., Oct. 12, 1887.

Editor Manufacturers' Record:

The South Florida Ice Co. sold out to Woodbridge Manufacturing & Investment Co. September 14. \$40,000 capital stock paid up at par. Company will build cold storage room, 50x50 feet, for fruits, and a orange wine factory building, 75x120 feet, two stories. Preserving and canning will be carried on also. Some \$25,000 will be put out this coming year in the improvement of the town, which is a part of purchase.

JOHN A. PRENTIS.

FAYETTEVILLE, N. C., Oct. 15, 1887.

Editor Manufacturers' Record:

I am contemplating starting a mattress factory for making pine fibre wool and hair mattresses; also cotton and shuck mattresses.

W. O. LOCKAMY.

NEW ORLEANS, LA., Oct. 15, 1887.

Editor Manufacturers' Record:

Our drug and chemical mill is being erected at 190 Tchoupitoulas street.

FINLAY & LEHMAN.

The Piedmont Exposition Mineral Exhibit.

Displays From the Mineral-Producing Sections of the South.

A Magnificent Representation of Iron and Coal.

[Special correspondence MANUFACTURERS' RECORD.]
OFFICE MANUFACTURERS' RECORD,
EXPOSITION BUILDING.
ATLANTA, GA., Oct. 14, 1887.

The verdict so far regarding the great Piedmont Exposition is that it is a grand success in every particular, from the smallest to the largest exhibit. The displays have been pronounced exceptionally fine, both in arrangement and in the grouping, showing taste and judgment on every hand.

The large concourse of people in daily attendance attests the success of the exposition, and the crowds arriving daily from nearby towns, coming with a determination to "spend a day at the great fair," proclaim this wonderful Southern exhibit a grand success in every particular.

The results which must necessarily follow from this magnificent display from farm, mine and forest along the far-famed Piedmont section, will no doubt be practical and enduring. It is estimated that during the past week over 100,000 people have come and seen for themselves the wonderful productions and exhibits of this Piedmont belt, and after a thorough inspection one and all have returned home thoroughly satisfied and convinced of the prodigious resources and advantages of the South. The main hall of the exposition building is largely devoted to the display of a great variety of productions, such as household goods, manufactured articles and works of art, articles of vertu, &c., but the most satisfactory display, and the one attracting general attention, is the exhibit in Agricultural Hall, where the minerals, timber and soils of the South are extensively and uniquely displayed; therefore this letter will be devoted mainly to the mineral display of the exposition, of which Mr. C. C. McFail, who is in charge of the R. & D. R. R. exhibit, says: "This is by far the most satisfactory and complete mineral exhibit it has been my good fortune to see and inspect during the whole course of my life; in fact, the whole exhibit of the raw materials of the South, as here presented, is certainly the most general and satisfactory I have ever come in contact with."

Agricultural Hall, a building covering nearly five acres, tastefully arranged, is largely devoted to the display of minerals. Near the main entrance, and nearly in the center of this building, is the display of the R. & D. R. R., under the immediate supervision and direction of C. C. McFail, a thoroughly practical and informed mineralogist. The first grouping consists of a varied and most excellent display of iron, of which every variety known is on exhibition, especially a fine line of Bessemer steel ores from North Carolina and Georgia. There also is to be seen coal, limestone and manganese artistically arranged and of the richest quality, from along the line of the R. & D. R. R. system. In the second grouping are the copper ores, the most striking feature of which is their richness in silver—enough in some of it to pay for the mining and extraction of the copper free. In the third grouping is a vast display of the ores of the Southern gold belt, certainly presenting a most interesting, beautiful and attractive sight. Among the noted mines represented by fine specimens are the new Hoover Hill mines of North Carolina, the Genessee gold mine, and the Appalachian mines of Montgomery county, N. C. These mines

are owned and operated by Northern and English capitalists. The Genessee mines, with 40 stamps worked for the past twelve months, has during that period shipped to the United States Mint in Charlotte \$20,000 worth of gold ore every month. These mines are increasing in working capacity yearly, while the yield is constantly enlarging.

In the North Carolina department of the exhibit there is a large and interesting collection of lead and zinc ores carrying silver in paying quantities. This collection attracts universal attention. The nickle and tin ores of North Carolina, the first exhibit in any quantity in the South, is wonderfully attractive and deserving of special attention. On long and neatly arranged tables are to be seen excellent displays of talc of the finest variety, soapstones, roofing and marble slates, limestones, feldspar and asbestos, all presenting a very unique and magnificent display in their separate lines. The neat and beautiful cases of gems and precious stones along the Piedmont belt is particularly noticeable, both for the excellence of the exhibit as well as the variety of the stones. It is a sight well worth seeing in order to acquaint one's self with the many precious stones and gems found at our very doors.

The magnificent resources of the South in minerals and timber are grandly illustrated here in the exhibits made by the progressive towns and counties in the rapidly developing mineral sections of Alabama and Georgia. Birmingham, unfortunately, has failed to make a good display. For once in her history she has failed to carry out what had been expected of her. There were, however, some good reasons for this, one being the late day at which it was decided to make an exhibit, and the other the fact that the people of the town did not show very great interest in the matter.

Still it is a marvelous exhibit, and there is so much shown here that any additional quantity of minerals would be almost superfluous. Anniston, Tuscaloosa, Gadsden, Sheffield, Rome and other places have made exhibits that are almost incomprehensible to Northern and Western people who have not heretofore fully believed what they have read of the South's boundless mineral wealth.

Anniston makes a magnificent display of her raw materials and of the finished products of her great manufacturing. On a side track stand some three or four cars made in Anniston's car works, on which are piled massive exhibits of ore from which the celebrated Woodstock iron is made; great blocks of coal and piles of coke from the splendid Cahaba coal and iron property, comprising 30,000 acres of coking coal probably unsurpassed in the South. This vast property is owned by Anniston capitalists, and is being developed in the interests of that town. Inside the building Anniston shows a large model of a blast furnace, built entirely of pig iron, which is exceedingly striking and attracts universal attention. Then comes a sample of iron ore, followed by a sample of pig iron, and then this is carried through all the processes until it reaches its finished state in the shape of car axles and car wheels, all turned out of Anniston's works. These axles are so remarkably fine and the quality of the iron so high that they can be taken when cold and bent double without showing a sign of a crack or flaw. This does not mean that simply a few axles made for this exposition possess this unusual quality, but that the entire product of these great axle works will stand this test. It is a wonderfully strong testimonial to the remarkably fine quality of Anniston's pig iron.

Then Anniston shows a pyramid of fire-bricks from the first kiln of the new works of Messrs. Taylor & Sons, of Cincinnati, who are putting about \$100,000 into an

immense fire-brick plant at Anniston. These bricks have stood tests that Messrs. Taylor & Sons say would have destroyed their Cincinnati bricks. The Anniston Cotton Mill shows a fine lot of its product baled ready for shipment to China, with which country this mill has a large trade. There are also splendid samples of hardwood and pine timber, and a magnificent cabinet made in Anniston of local woods, filled with specimens of the minerals in and around that town. In all of its details and as a whole this exhibit reflects great credit upon this prosperous town.

Four years ago a corn or cotton field in North Alabama was divided off by imaginary lines into streets, and town lots were sold at auction at what were then thought fabulous prices. That corn field is the site of Sheffield. To-day in this exposition Sheffield shows what wonders she has accomplished. In the center of her space stands a splendid monument built of her minerals, ores, coal, limestone, &c., while at the base and surrounding it are other samples of the same, and prominently above all hangs the motto: "IRON IS KING." More striking even than this to illustrate the wonderful progress of the place are photographs showing Sheffield in 1886 and 1887. As late even as 1886 the town made but little show—the foundation had been laid, but the superstructure had not yet appeared. Then comes Sheffield in 1887. Here are shown photographs of splendid business blocks finished or under construction, a magnificent bank building that would do credit to the great cities of the country, four immense blast furnaces nearly completed, fine residences, etc., all telling in language more forcible than that of the most gifted pen the story of Sheffield's wonderful growth from a corn field to an industrial and railroad center.

The Tuscaloosa exhibit, presided over by R. B. Jones, shows up to great advantage. On the wall fronting the main entrance is an excellent map of Tuscaloosa, giving its geographical position, its nearness to the coal and iron fields, and the advantage of water communication to the sea. In their enclosure are handsome specimens of coal, iron and timber taken out within five miles of the city. Here are to be seen thirteen varieties of marketable woods from the lands of the company, polished on one side, showing the great beauty of the wood and its susceptibility of finish. Specimens of cotton goods from the Tuscaloosa Manufacturing Company are especially attractive, exemplifying a new process of manufacture in cotton goods. The farming products from this section are neatly displayed, showing a great variety of the cereals and vegetables. In fact, the Tuscaloosa exhibit is one of the most attractive in the Agricultural Hall, and is visited by all interested in the minerals and timber productions of the South.

Gadsden, Ala., has a large space where the exhibits from this well-known mineral section are very neatly and tastefully arranged. Mr. J. H. Wiley has charge of the exhibit, and takes great pleasure in showing the wonderful developing features of his section. In convenient places scattered around are to be seen a very large display of iron ores, pig iron, brown hematite, manganese, coal and coke, showing the wonderful fertility of this immense mineral belt in Alabama. Specimens of kaolin and fire-clay of the finest quality are here presented for inspection, showing its marketable uses. Blue, red and yellow samples of sand rock for building purposes are tastefully exhibited. Probably no other section of the South is so rich in these sand rocks as this portion of Alabama. It has been reported upon good authority that manganese ore has been lately discovered in inexhaustible quantities in various places in and near Gadsden. Experts have pronounced it of unusual quality.

Here is an analysis made by Messrs. Stillwell & Glodding:

Manganese.....	50.000
Pb. spheros.....	0.001
Sulphur.....	0.005

This very important discovery will add much to Gadsden in the way of a building boom of strength and character, and will attract the capitalist and the investor. The above mentioned places are deserving of special mention for the manner in which they have made their several exhibits, and it is to be regretted that want of time and space forbids a more extended description of these and other exhibits.

HINTON A. HELPER.

BIRMINGHAM, ALA., Oct. 15, 1887.

Editor Manufacturers' Record:

We send on the first train over the Kansas City, Memphis & Birmingham Railroad a car of coke oven fire-brick, consigned to the Alabama & Tennessee Coal & Iron Co., Jasper, Ala. This company intend to build 500 coke ovens on the line of the above railroad. Several new coal mines are being opened on the same road. We are now negotiating for the control of one of them, which will have an output of 2,000 tons per day. We are also making arrangements for the control of a sand pit on the same road, which is forty acres in extent and has a depth ranging from ten to eighteen feet.

Considerable comment has been made upon an impending coal panic in this section. Our business in the coal line (wholesale shippers) enables us to keep posted on the state of the market, and we can confidently say that a scarcity of supply in this section can be caused by nothing else than a scarcity of freight cars to take it from the mines. The tremendous traffic to and from Birmingham, increased by fall shipments of merchandise, by cotton shipments, iron, coal and building material, makes the supply of cars totally inadequate. We have reason to believe that the completion of other roads besides the one referred to above will ease present roads of some of the burden and enable this immediate section to draw full supplies, not only in coal, but in other things which are now delayed. As for the sections tributary to this, we cannot speak so hopefully. The railroads are averse to sending their own cars over another line (since they need every one on their own roads), and in consequence the delay brought about by securing the cars of the road to which the shipment is last transferred is frightful. We receive daily orders from Florida, Georgia, and all parts of this State for coal, and have to manage to have our shipments from one point carry cars to another of the kind that we want to use.

RUSSELL & CO.

MONTGOMERY, ALA., Oct. 15, 1887.

Editor Manufacturers' Record:

This summer we put in one No. 4 Root's exhaustor, 12-inch connections; one P. & H. condenser, 12-inch connections; reset two benches of 6's; laid 2,000 feet of 12-inch main and 2,000 feet of 8-inch main.

MONTGOMERY GAS CO.

Mr. Wm. C. Codd, 2,010-2,015 Aliceanna street, Baltimore, reports business as good, and states that orders are coming in satisfactorily for new and second-hand machinery. He has for sale a fine line of machinery, among which we mention one No. 4 Sturtevant blower, second-hand; one No. 1 Keystone forge, second-hand; one No. 6 Buffalo forge with water tank for power, new; two boiler feed pumps, one power boiler punch, one Lawson vertical gas engine, 3 horse-power; one horizontal steam engine, 3 horse-power, second-hand; vertical steam engines from 5 to 12 horse-power, etc. Parties in need of machinery would do well to write to Mr. Codd for catalogues, prices, &c.

THE Roanoke Machine Works, Roanoke, Va., have received an order to furnish the Pennsylvania Railroad Co. with 250 hopper cars.

The Anniston Union Depot.

ANNISTON, ALA., Oct. 12, 1887.
Editor Manufacturers' Record:
 A splendid new union depot will be built. Work has been commenced, the plans having been furnished by Chisholm & Green, architects. The building will be of the beautiful sandstone from Anniston quarries, and will have a car shed to accommodate four trains inside and two outside the supporting pillars of the roof. The grading and filling of the site is now in progress, and the work will be let as soon as bids from contractor are decided on.

Will Remodel Flour Mill.

WHITESBURY, TENN., Oct. 12, 1887.
Editor Manufacturers' Record:
 We have purchased flour mill formerly owned by Kilpatrick & Rader and will improve to a full roller mill soon.
 W. A. RADER & CO.

Improving Lumber Mill.

MEMPHIS, TENN., Oct. 15, 1887.
Editor Manufacturers' Record:
 We are widening our lumber mill and putting in trimmer and steam feed.
 WILLIAMS & CO.

JASPER, TENN., Oct. 10, 1887.
Editor Manufacturers' Record:
 A large stock company has bought 25,000 acres of land lying between Sewanee and Mount Eagle, on which they propose to build a very fine hotel. W. J. ROBINSON.

LYNCHBURG, VA., Oct. 11, 1887.
Editor Manufacturers' Record:
 We commenced operations in our pipe works last Saturday, October 8, and cast our first pipe that day, which was 4 inch water pipe.
 THE GLAMORGAN CO.

Roller Flour Mill.

BUCKHANNON, W. VA., Oct. 11, 1887.
Editor Manufacturers' Record:
 We have built and now have in operation a roller flouring mill.
 HART & GRIFFIN.

DECATUR, ALA., Oct. 13, 1887.
Editor Manufacturers' Record:
 A company is organized and the stock all subscribed to build an opera house costing \$35,000.
 W. E. FOREST.

BIRMINGHAM, ALA., Oct. 13, 1887.
Editor Manufacturers' Record:
 The Hospital of United Charities, under the auspices of society of same name, is to be erected as soon as plans now under consideration are approved by building committee. The building is to cost about \$30,000. SECRETARY UNITED CHARITIES.

FORT WORTH, TEXAS, Oct. 12, 1887.
Editor Manufacturers' Record:
 We are putting up our machinery, and will be running in or about two weeks.
 SPANISH MOSS MFG. CO.

SHEFFIELD, ALA., Oct. 11, 1887.
Editor Manufacturers' Record:
 I have made arrangements here to organize a company to manufacture cotton gins and plantation machinery, but have not all the subscriptions yet. If I get the full amount, as I expect to, the company will organize and go in operation.
 W. O. COLEMAN.

CARTERSVILLE, GA., Oct. 13, 1887.
Editor Manufacturers' Record:
 I have formed the Central Co. Its business is dealing in mineral lands and other real estate, and such manufacturing enterprises as may be determined on in future.
 JOHN W. AKIN.

To Build a Roller Mill.

MADISON MILLS, VA., Oct. 14, 1887.
Editor Manufacturers' Record:
 We expect to build a roller mill the early part of next year, either in the short or long system. Expect to put in a roller mill and take out the burrs.
 T. O. GILLUM & CO.

Will Erect Electric Light Plant.

COLUMBUS, GA., Oct. 13, 1887.
Editor Manufacturers' Record:
 I have formed a company to erect an electric light plant, and will commence the work very soon; capital stock \$20,000. Have also erected and will start running a steam saw mill (capital \$50,000), with capacity of 70,000 feet per day, within two weeks. It will be known as the Samples Lumber Co. Is located on the Columbus & Western Railroad at a place to be called Hollins, 8 miles east of Sylacauga, Ala.
 T. E. BLANCHARD.

To Manufacture Gingham.

LEXINGTON, S. C., Oct. 11, 1887.
Editor Manufacturers' Record:
 We have contracted with Woods & Co., of Philadelphia, to put in necessary machinery to change our yarn mills into a mill for manufacture of dress gingham, &c. Expect to begin putting in new machinery latter part of December. RED BANK MILLS.

Will Erect Malgaming Works.

DENVER, COL., Oct. 5, 1887.
Editor Manufacturers' Record:
 Shall erect works near Bear, Ark., in a very short time, of the capacity of ten tons of ore per day.
 WAITZ ELECTRO-MALGAMATING WORKS.

Cigar Box Factory

KNOXVILLE, TENN., Oct. 8, 1887.
Editor Manufacturers' Record:
 I am building a cigar box factory.
 E. R. KEITH.

New Machinery.

NEWMAN, GA., Oct. 13, 1887.
Editor Manufacturers' Record:
 We have just placed in our mills a car of machinery for improving quality of paper. We contemplate shortly increasing our capacity.
 WILKINSON PAPER MILLS.

FAYETTEVILLE, ARK., Oct. 14, 1887.
Editor Manufacturers' Record:
 I have started a broom factory at this place, and see no reason why I will not make a success of it. T. A. ROACH.

MIDLOTHIAN, VA., Oct. 13, 1887.
Editor Manufacturers' Record:
 We are opening the coal pits here.
 S. S. MURPHEY.

C. R. MAKEPEACE & CO.
 ARCHITECTS and MILL ENGINEERS
 PROVIDENCE, R. I. Plans, Specifications and Estimates furnished for Cotton and Woolen Mills.

STEEL RAILS
 COMPLETE OUT-FIT FOR

Logging, Mining and Plantation

RAIL AND TRAM ROADS.
 Light Sections Rails and Spikes in stock.
 Locomotives, Logging Cars, etc.
 NEW AND SECOND HAND.
HUMPHREYS & SAYCE,
 OFFICE NO. 1 BROADWAY, N. Y.

MORRISTOWN,
The Metropolis of Upper East Tennessee.**IN BRIEF:**

It has a population of 3,500—incorporated. It has more than doubled its population since 1880.
 It has the finest courthouse and opera house in Upper East Tennessee.
 It is the center of the richest and most extensive agricultural district in the State.
 It has an elevation of 1,400 feet, and affords mountain views of surpassing beauty.
 It has five commodious brick church edifices and two good brick school buildings.
 It does the largest retail and wholesale business of any city in Upper East Tennessee.
 It offers more and better opportunities for paying business enterprises than any city in the South.
 It has hundreds of thousands of acres of unexcelled forests of merchantable timbers accessible to it.
 It has the finest climate in the world, an abundance of pure spring water, and is noted for its healthfulness.
 It is building more business houses and private residences in proportion to its population than any city in the State.
 It is surrounded with iron and zinc mines and quarries of gray and variegated marbles of incalculable extent and value.
 Its land companies and building association place desirable homes within reach of men of small means as well as large.
 It is the commercial, manufacturing and railway center of Upper East Tennessee, having immediately tributary to it nine of the wealthiest counties in East Tennessee and a large part of Western North Carolina.
 It has railroad facilities equal to those of any point between Chattanooga and Lynchburg, and they will be increased in the next eighteen months by the building of the short line to the coal fields at Cumberland Gap.
 It has a citizenship composed almost exclusively of native-born Americans, large numbers of whom are recent emigrants from New York, Connecticut, Pennsylvania, Ohio, Virginia, Indiana, Wisconsin and other States.
 It has two banking institutions, extensive stove works, a manufactory of agricultural implements, a large tannery, three lumber mills, the largest commercial flouring mill in East Tennessee, two marble works, a carriage and wagon factory, and many industrial establishments of lesser note.

ROBERT L. CANT,
 President Business Men's Association.

Farm, Mineral
AND
Timber Lands.

Parties desiring to obtain **Fin City Property** in a growing manufacturing center, and **Truck Farms** of superior excellence in close proximity to the markets of the country, and **Mineral and Timber Lands** of great value, will do well to consult Messrs. A. B. Whiteaker & Co., of Bristol, Tenn. The **Mineral and Timber Lands** controlled by us are within a radius of fifty miles of Bristol, and are pronounced by experts to be the most valuable in the sections of East Tennessee and Southwest Virginia. The **Timber Lands** are of virgin growth and in close proximity to the railroads. The **Mineral Lands** are the richest in this section of the South. **Capitalists and Prospective Settlers**, as well as **Home Seekers**, will do well to consult us regarding our lands, which we offer at the most reasonable prices. We will be glad to furnish any or all kinds of information regarding lands in this section of the State. Address

A. B. WHITEAKER & CO.
 BRISTOL, TENN.

FOR SALE.
400,000,000 feet Timber

150,000,000 feet White Pine.
 30,000,000 feet Poplar.
 200,000,000 feet Hemlock.
 10,000,000 feet White Oak.
 Ten miles from railroad to be completed in twelve months.

E. B. MOON, Bristol, Tenn.

D. W. K. PEACOCK,
Real Estate Agent,
 CARTERSVILLE, GA.
Minerals a Specialty.
 Refers to THE HOWARD BANK, Cartersville, Ga.
 J. W. RANKIN, Atlanta, Ga.

The Old South and the New
1867-1887.

A SERIES OF LETTERS TO THE "MANUFACTURERS' RECORD" RECORDING THE OBSERVATIONS MADE IN TWO JOURNEYS THROUGH THE SOUTHERN STATES, WITH SPECIAL REFERENCE TO INDUSTRIAL AND COMMERCIAL CONDITIONS AND CHANGES.

BY

WILLIAM D. KELLEY, M.C.

"This volume is the result of an earnest desire on the part of its author to understand the industrial and social condition of the people of the Southern States. The better to gratify this desire, he revisited in 1887 substantially the field he had traversed in 1867. A few days sufficed to convince him that to chronicle his observations with photographic fidelity, and to report them, with his conclusions therefrom, to his countrymen at large, might prove to be a fitting close to the labors of a long life which has been devoted chiefly to the investigation of social and politico-economic questions."—*Author's Preface.*

IN THE QUESTIONS OF THE DAY
 SERIES, No. 44.

12mo, Cloth, \$1.25.

G. P. PUTNAM'S SONS,

27 & 29 W. 23d Street, New York.
 27 King William St., Strand, London.

Iron and Steel
→ **Manufacturing.**

The advertiser wishes to enlist parties who desire to engage in manufacturing with the view of erecting a plant equal to any in the country. Can offer location where building can be done cheaply. A number of leading railroads for collecting and distributing materials and stock at best rates are available. Cheap coal, and fuel gas can be furnished at five cents per thousand feet, and with a complete organization under a perpetual charter, with privileges unlimited as to use of capital in manufacturing and mining, and all necessary and proper advantages for the association of capital at any desirable point. Or, if a better location could be found, the advertiser would make the organization available at such a point, or where parties are already manufacturing or mining and wish to extend their business. Address

IRON & STEEL MANUFACTURER,
 Care MANUFACTURERS' RECORD,
 Baltimore, Md.

COPY OF ORDINANCE

Passed by the Council of the Town of West Point, Virginia, on the 21st day of April, 1879, and re-enacted and approved on the 22d day of March, 1887.

Be it ordained by the Council of the Town of West Point, Va., that any party or parties investing in property in this town for the purpose of conducting any enterprise, such as manufactories, packing houses, &c., and actually operating the same, they shall be exempt from all corporation taxes upon such property, and all machinery and improvements thereon, for the term of ten years from the purchase of such property.

It is also ordered that the Mayor is hereby instructed to advertise this ordinance in the "MANUFACTURERS' RECORD," a paper published in the City of Baltimore, Md.

E. WILKINSON, Mayor.

For Sale.

PLUMBING, GAS and STEAM FITTING BUSINESS in one of the best cities in the South. Have all the work can do. An excellent opportunity for an enterprising man. Carry stock of about \$8,000. Reasons for selling—owners have large interests in other business. Address **H. W. BROWN,**
 Care MANUFACTURERS' RECORD.

DECATUR, ALA.

Offers outside investors better inducements to locate than any other

 CITY IN THE SOUTH. 

AS A CITY OF

Mammoth MANUFACTURING Enterprises,

She has few equals and no superiors in the South.

There have been located at Decatur in the last four months the following Industries :

THE DECATUR LAND, IMPROVEMENT & FURNACE COMPANY. Has 50,000 ACRES of Iron, Coal, Mineral and Timber LANDS.
The Louisville & Nashville Railway Car Works. Cost of Buildings, \$300,000.

Charcoal Company's plant, costing \$120,000.

A seventy-ton Charcoal Iron Furnace, costing \$190,000.

A one hundred-ton Blast Iron Furnace, costing \$225,000.

The Decatur Iron Bridge Construction Company; cost of plant, \$100,000.

The American Oak Extract Company's plant, costing \$60,000.

Ivens & Sons Steam Boiler and Engine Works, costing \$100,000.

Morse Cotton Compress plant, costing \$60,000.

Decatur Lumber Company, Saw and Planing Mills, costing \$50,000.

Berthard & Co., Sash, Door and Blind Factory, cost \$15,000.

The Decatur Street Railway Company.

The Telephone Company.

Brush Electric Light Company, cost \$10,000.

The Ironton Wheelbarrow Company, cost \$25,000.

Howland & Co's Water Works System, costing \$200,000.

Bleymeyer Artificial Ice Company, cost \$10,000.

Four Mammoth Brickyards.

Jones, Poley & Co's Lumber Yards.

The Hoosier Mills & Building Company.

The Gate City Sash & Door Company.

Arantz Bro's Mills and Lumber Yards.

Grant & Co's Furniture Factory.

Southern Lumber Company.

H. S. Freeman's Mills and Lumber Yards.

The Alabama Farmer's Friend Fence Machine Company.

The Decatur Artificial Stone Company.

Decatur Chain and Architectural Iron Works, capital \$100,000.

Natural Gas Company, capital \$200,000.

First National Bank, capital \$100,000.

The Exchange Bank of Decatur, capital \$100,000.

Merchants' Insurance Company, capital \$100,000.

Decatur Building Association, capital \$300,000.

Decatur Building Company, capital \$1,000,000.

Buchheit's Bottling Works.

Decatur Printing Company.

Two daily papers, three weekly papers.

Two hotels are building—one \$60,000, one \$300,000; the largest in the South.

Grand Opera House, \$100,000.

THERE ARE OTHER

Mammoth Enterprises

Locating here, and contracts are being made with some of the most extensive industries in the United States.

Decatur is the Healthiest city in Alabama, the death rate among whites for 1886 being only 11 in 1,000.

Decatur Land, Improvement & Furnace Company.

E. C. GORDON, President

H. G. BOND, Vice-Prest. and Gen. Manager.

W. E. FOREST, Secretary.

This Company has been pre-eminently successful in promoting the interests of the city of Decatur.

CORRESPONDENCE SOLICITED WITH PARTIES SEEKING LOCATIONS.

TRADE NOTES.

THE cost of the new fire engine made by the La France company for this city is \$3,600, including a heater and check-valve. The heater is to keep the water in the boiler always hot, so that no time may be lost in getting up a full head of steam at a fire, and the check-valve enables the pipe men to cut off the flow of water at the nozzle while the engine is pumping, without much increasing the pressure in the hose. The new steamer, at the trial yesterday forenoon at the corner of Church and State streets, threw five good-sized streams with sufficient force for almost any ordinary fire. The start was made from cold water. In one minute and 27 seconds there were five pounds of steam, and in 5 minutes and 33 seconds there were 80 pounds. The pumps were then started. The trial was entirely satisfactory to everybody (Alderman Davison is out of town) and the steamer was accepted by the commissioners.—Elmira (N. Y.) Daily Advertiser.

WE call attention to the advertisement of the Goulds Manufacturing Co., of Seneca Falls, N. Y., which appears in this issue. This is one of the oldest and largest concerns manufacturing pumps in the country. Their goods are shipped all over the world. A new catalogue will soon be issued to the trade. Send in your name on a postal card if you are a dealer and you will receive a copy.

It will surprise many of our readers to know that a cotton or woolen card may have its old or worn-out clothing taken off, new clothing put on and be put in first-class carding condition in one day or less. Yet this is being constantly done by the T. K. Earle Manufacturing Co., of Worcester, Mass., with their patent needle pointed hardened and tempered steel wire card clothing. That this is a great boon to manufacturers goes without saying, and to all who are skeptical, we would say that seeing is believing, and we advise such to try it and be convinced of its merits.

THE M. C. Bullock Manufacturing Co. report the following recent shipments of machinery: To the Union Steel Co., of Chicago, three 4-foot wrought American sheaves; to R. E. Brownell & Co., Thornton, Ill., one 3½-inch Ingersoll rock drill—this is the fourth drill sold to this company; to the Tamarack Mine, Opechee, Mich., one wrought iron cage; to S. W. Lewis & Co., Rapid City, Dakota, one No. 5 Lane's patent band friction hoist, one 8x7x5 sinking pump, one No. 6 feed pump, one 30-horse-power boiler, sheave, rope, etc., for a complete hoisting plant; to the Calumet & Hecla Mining Co., Calumet, Mich., one 13x18 straight line engine; to the Chapin Mine, Iron Mountain, Mich., one pipe-driving machine.

AMONG the exhibits at the 16th annual fair of the Massachusetts Charitable Mechanic Association, which opened at Boston, September 27th, was the Empire City mill, manufactured by J. B. Waring & Sons, New York, running by power from a 16-foot Dana wind engine. Coffee, grain, etc., will be ground on the premises.

THE Cambridge Roofing Co., Cambridge, O., report that they are doing an excellent business. So great is their demand for Crowl's patent iron roofing that they are obliged to work at night in order to supply their customers. The excellent merits of this roofing create a large demand for it from the building public.

THE Shultz Belting Co., St. Louis, Mo., have just put in a new power belt press, 62 inches wide, and can now make patent felled leather belt five feet wide.

QUICK WORK.—The "Firmenich" boiler at the mill of the Plant Milling Co., St. Louis, exploded October 3, destroying the boiler house and wrecking the Babcock & Wilcox boiler by its side. As soon as the debris could be cleared away, and the facts investigated, a telegraphic order was sent to the Babcock & Wilcox Co. for two new boilers of 500 horse-power, and in four days the same were on the cars ready for shipment. This is doubtless the quickest time on record, where so large an amount of boilers were supplied on an unexpected demand.

MR. G. C. TERRY, manufacturer of show cases, etc., states that his business has far outgrown his ability to carry it on without aid, and he is looking for a practical man to take charge of the manufacturing, so as to allow him to give his whole time to the business department. His advertisement will be found elsewhere.

A. WYCKOFF & SON, Elmira, New York, now manufacture a patent wooden pipe especially adapted for use in iron and coal mines for water supply or for drainage. It is much cheaper and more durable than iron piping, as the mineral in the water has no effect on the wood. The pipe is made in lengths of 6 to 8 feet, connected by a socket-joint, perfectly water-tight, and can be easily and properly put together by any ordinary laborer, and requires no preparation other than simply being driven together. The pipe is also adapted for coke ovens, and is used by many manufacturers of coke. The advertisement of A. Wyckoff & Son appears on the last page of the MANUFACTURERS' RECORD.

MESSRS. J. S. GRAHAM & CO., of Rochester, N. Y., manufacturers of fine high-grade wood-machinery, report the following recent shipments to the South: To Empire Lumber Co's mills, one resawing machine, one automatic knife grinder, one 26 inch double surfacer, one self-feed gang ripping machine, one 7-inch moulder and one No. 1 Standard, 8 roll, fast feed flooring machine; to W. W. Willis, Pocahontas, Tenn., one No. 2 Standard fast feed flooring machine, one resawing machine.

BEAUTIFUL LAMPS FOR THE HOLIDAY TRADE.—Have you seen the Aurora lamp, manufactured by the lamp and brass works of W. J. Gordon, Cleveland, Ohio? It is a beauty, and the Cleveland concern can hardly keep up with the orders pouring in from dealers, jobbers and exporters. Write for prices and discounts.

THE Bucyrus Foundry & Manufacturing Co., builders of steam excavating machinery, Bucyrus, Ohio, have recently sold a dredge to the United States Government of special design and very large capacity.

Philadelphia Trade Notes.

MESSRS. RIEHLER BROS., proprietors of the Philadelphia Scale & Testing Machine Works, report having received the following orders: Three 50 ton track scales, for Woodstock Iron Co., Anniston, Ala.; one 20 ton track scale, for Pottsville Iron & Steel Co., Pottsville, Pa.; one 10 ton track scale, for Thomas Iron Co., Hokendauqua, Pa.; one charging scale, for Pioneer Iron & Manufacturing Co., Birmingham, Ala.; one 6 ton track scale, for Noble Bros. & Co., Anniston, Ala.; two furnace charging scales, for Schloss Furnace Co., Birmingham, Ala.; one furnace charging scale, for Mahoning Valley Iron Co., Youngstown, Ohio; one furnace charging scale, for Colorado Coal & Iron Co., South Pueblo, Col.; one 3,000 pound rolling mill scale, for Lickdale Iron Co., Lebanon, Pa.; one 3,000 pound rolling mill scale, for W. Cramp Engine & Ship Building Co., Philadelphia, Pa.; seven wagon scales, for Southern Cotton Oil Co., Charlotte, N. C.; one wagon scale, for W. T. Chase, Cumberland, Md.; one wagon scale, for W. F. Smalley,

Harmony, Del.; one wagon scale, for Dr. Morwitz, Tullytown, Pa.; one wagon scale, for J. H. Brosius, Lincoln, Pa.; one wagon scale, for Hendrew & Robinson, Brooklyn, N. Y.; one wagon scale, for Philadelphia & Smyrna Transportation Co., Smyrna, Del.; one 6,000 pound Dormant scale, for Messrs. H. O. Wilbur & Son, Philadelphia, Pa.; one 3,500 pound Dormant scale, for C. J. Webb & Co., Philadelphia, Pa.; one 3,500 pound Dormant scale, for Erben, Search & Co., Philadelphia, Pa.; one 3,500 pound Dormant scale, for Wilson & Fenimore, Bristol, Pa.; two Abattoir scales, for W. Schleicher, Trenton, N. J.; one 500 pound cloth tester, for Mt. Vernon Co., Baltimore, Md.; one 500 pound cloth tester, for J. W. Cleveland, Paterson, N. J.; one 100 pound cloth tester, for Conshohocken Worsted Mills, Conshohocken, Pa.; one latest improved rope twister, for Messrs. Dennis, Long & Co., Louisville, Ky.; one latest improved rope twister, for Jackson & Woodin Manufacturing Co., Berwick, Pa.; one marble moulding machine, for M. M. Davidson & Son, Chicago, Ill. They report business very good, and that the outlook is favorable. They are busy on new testing machines and scales.

Literary Notes.

GENERAL FRANCIS A. WALKER, of the Massachusetts Institute of Technology, will have in the November Scribner's a notable economic and social essay entitled, "What Shall We Tell the Working Classes?" The article on Physical Training, which Dr. Sargent will contribute to Scribner's for November, will be very fully illustrated from instantaneous photographs of experts in the various branches of athletics, including the portraits of sprinters, lacrosse players, long distance runners, wrestlers, foot-ball, and base-ball players who have won enviable records at Harvard and Yale in recent years.

A SPECIAL Bill of Fare is being prepared for the holiday number of the Springfield, Mass., Good Housekeeping, of date of December 10th, to be issued during Thanksgiving week. One of its many attractive features will be a special dish prepared by Mr. E. C. Gardner, author of "Model Homes for Model Housekeeping," and many other wise sayings in a happy and effective vein, which will be recorded in the menu for the occasion as "Moral Malaria; Its Causes and Cure." This will be illustrated by Mr. Gardner's pencil, and illuminated, as are all his writings, by a sharp and pointed pen. Good Housekeeping is published fortnightly, \$2 50 a year, or ten cents a copy; all newsdealers sell it.

THE November number of Lippincott's Monthly Magazine opens with a complete novel by Virginia W. Johnson, entitled "The Terra-Cotta Bust"—an art romance, a picture of Italian life, delicately and gracefully painted, and full of poetry and pathos. The series of undergraduate sketches of life in the principal colleges of the United States is brought to a close by R. S. Round's "Social Life at Amherst College." Felix L. Oswald's article, "A Modern Spartacus," detailing the adventures and exploits of a bandit, who for several years back has defied the Mexican authorities and encountered many thrilling adventures, is a biographical sketch of the utmost interest. Another valuable article is Prof. John Johnson, Jr.'s, "The School-Boy as a Microcosm," in which the customs and morals and economic principles of the average school-boy are shown to reflect those of semi-civilized and savage periods of the human race. "The Story of a Stanza," by John R. Tait, is one of the bits of literary autobiography for which this magazine is famous. Arlo Bates' "A Sketch in Ueber" is a story of unusual power and insight. The most important of the poems is contributed by Walt Whitman, and is entitled "November Boughs." Excellent verses are also contributed by Mary Bradley and Willis Boyd Allen. The departments are interesting as usual.

THE Illustrated London News, in its American edition of October 15th, furnishes as usual many pictures upon a variety of subjects, including a double-page picture "Deer Stalking in the Highlands," three pages devoted to the "British Mission to Morocco," a most pleasing and instructive picture entitled "A Sid Dog's Day," "Sketches of Life on Board a Man-of-War," "The Home of Florence Nightingale," &c., &c. The supply of reading matter is also abundant and interesting, while the number complete costs at retail only 10 cents. The office of publication is 237 Potter Building, New York.

Speed on Southern Railroads.

The Queen & Crescent Route, running trains from Cincinnati to New Orleans and Shreveport, La., and passing through Chattanooga, Birmingham, Tuscaloosa, Meridian, Jackson and Vicksburg, has, with its "Queen & Crescent Limited Express," reduced the time between Cincinnati and New Orleans (827 miles) to twenty-five and a half hours. This train leaves Cincinnati at 7:55 A. M., and arrives at New Orleans at 9:30 next morning.

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WHEN in Cincinnati, stop at the Palace Hotel. Rates, \$2.00 and \$2.50 per day; meals, 50 cents each. Elegant rooms; fine table, and centrally located.

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IN THE SOUTH.

WHAT SOUTHERN USERS SAY OF THE HERCULES.

There is probably no higher authority in the South on water wheels than Mr. John Hill, civil and mechanical engineer, of the great Eagle & Phenix Cotton Mills, at Columbus, Ga. Read what he says of the Hercules Wheel.

The Best Wheel We Have.

JOHN HILL, CIVIL AND MECHANICAL ENGINEER,
Reference—Eagle & Phenix Mfg. Co.

COLUMBUS, GA., April 30, 1887.

As to my opinion of the Hercules Wheel, will say: In our mill (the Eagle & Phenix) we have twenty-one (21) water wheels of various kinds, three of them being Hercules. I regard the Hercules as being by far the best wheel of any we have. It is the best in workmanship, absence from repairs, large per cent. in power, and in general satisfactory results. I know of no wheel its equal. At Holyoke, testing flume a few weeks since, I personally witnessed a test of a Hercules of the ordinary construction, which gave 83 96-100 per cent. of efficiency.

Yours truly,

JOHN HILL.

Cannot Speak too Highly of the Hercules Wheel.

JAMES RIDDLE, SON & CO.
Brandywine Cotton Mills.

KENTMERE, DEL., April 27, 1887.

In reply to your inquiry as to the working of a "Hercules Water Wheel" now running at our mills, would say that we put in nearly two years ago a 39-inch Hercules Wheel, running under a 144-foot head. It is driving up to full regular speed three hundred and three heavy looms, with only half gate. We are about to enlarge the weave mill and add three hundred more looms, which will be driven by the same wheel. We cannot speak too highly of the Hercules. It has absolutely run without cost or derangement since it started, and has given eminent satisfaction in every way.

Yours truly,

JAMES RIDDLE, SON & CO.

Perfectly Satisfactory in Every Way.

PORTER WOOLEN MILL.

J. H. Porter, President. J. W. Robertson, Gen. Manager.

CLARKSVILLE, GA., April 29, 1887.

In reply to enquiry as to my opinion of the Hercules Turbine Water Wheel, say: I have put in two, one about

six years since, and the other in 1883, and think so highly of the wheel that I shall use another in cotton mill this company is now constructing. Neither of the wheels alluded to have given the slightest trouble, and their working has been perfectly satisfactory in every way.

Yours truly,

J. W. ROBERTSON, Gen. Man.

The Hercules Wheels Have Given Perfect Satisfaction.

ROSWELL MANUFACTURING CO.

Sheetings, Shirtings, Checks, Yarns, &c.

ROSWELL, COBB COUNTY, GA., April 29, 1887.

In answer to yours of 25th inst., asking our opinion of the Hercules Wheel, will say our experience is as follows: In our new mill, built about four (4) years ago, we put a 30-inch Hercules Wheel, under a 21-foot head of water. It has given such satisfaction running this (5,000) five thousand spindle mill, that last summer, when we were compelled to put in a new wheel at our old mill, running 7,000 spindles, looms, twisters, &c., we put in a 36-inch Hercules Wheel, under a 27-foot head of water. All I can say is we have surplus power in both mills, have lost no time by any defect of wheels, and if we were putting up any more mills, would use the Hercules Wheel. They have given us perfect satisfaction.

Yours respectfully,

F. J. MINHINETT, Prest.

A Good Wheel, and Has Given Good Satisfaction.

PEE DEE MANUFACTURING CO.

Plaids and Warps.

ROCKINGHAM, N. C., April 30, 1887.

We have been using the Hercules Water Wheel for more than six years. Our superintendent says it is a good wheel, has given good satisfaction, and its performance is equal to the claims of the maker. We have a head of 17 feet. Our wheel has a diameter of 39 inches. Under this water pressure the wheel has moved 4,000 spindles and the needed preparation, and 164 plaid looms. The above includes the dye house, machine shop and all other machinery which we employ.

Very respectfully,

WALTER L. STEELE, Prest.

Best Wheels I Have Ever Seen.

MARIETTA PAPER MANUFACTURING CO.,

Book, News and Wrapping Papers.

MARIETTA, GA., April 30, 1887.

In reply to your favor of the 25th inst.: I am using four Hercules Water Wheels, two 12-inch, one 24-inch,

and one 30-inch. They have given me perfect satisfaction, and I think that they are the best wheels that I have ever seen.

Yours truly,

S. A. ANDERSON.

Has Never Given the Slightest Trouble.

PACOLET MANUFACTURING CO.

Jno. H. Montgomery, Prest. and Treas.

PACOLET, S. C., April 29, 1887.

Replying to yours of 25th, would say: We have a 54-inch Hercules Water Wheel running, under 20-foot head, 12,000 spindles and 338 looms, with other necessary machinery. Has been running about three and a-half years, and has never given us the slightest trouble; not an hour's stoppage during the whole time.

Very truly yours,

JNO. H. MONTGOMERY, Pres. and Treas.

Well Satisfied With It.

WM. J. RUSSELL,
Manager Princeton Factory.

ATHENS, GA., April 28, 1887.

I have used the "Hercules" wheel since 1881, and am so well satisfied with it that I should not purchase any other if in want of a first-class wheel. It does all the manufacturers claim for it.

Yours truly,

WM. J. RUSSELL, Manager.

Has Given Entire Satisfaction.

HOLCUMB'S ROCK, BEDFORD CO., VA., }

April 28, 1887. }

The Hercules Wheel has given entire satisfaction.

Very respectfully,

J. A. HARRIS & CO.

Unhesitatingly Say its the BOSS Wheel.

BUZELA, GA., April 29, 1887.

I have been using a 21-inch "Hercules Water Wheel" since August 1880, and unhesitatingly say it is the BOSS wheel. It has performed with utmost satisfaction, and given more power than the makers claim, using water with more economy than any wheel I ever knew. T. W. G. Inglett, Esq., who has put up two "Hercules" for parties, says "it can't be beat."

Very respectfully,

BRAD. MERRY.

THE HERCULES

Gives the Most Power for its Size and the Highest Average Percentage from Full to One-Half Gate of Any Wheel Ever Made.

If you want to buy a new Water Wheel, if your old wheel does not give satisfaction, if you would like to know just how perfect a Water Wheel can be made, or if you are in any way interested in Water Wheels it will pay you to write for Catalogue No. 3 to the

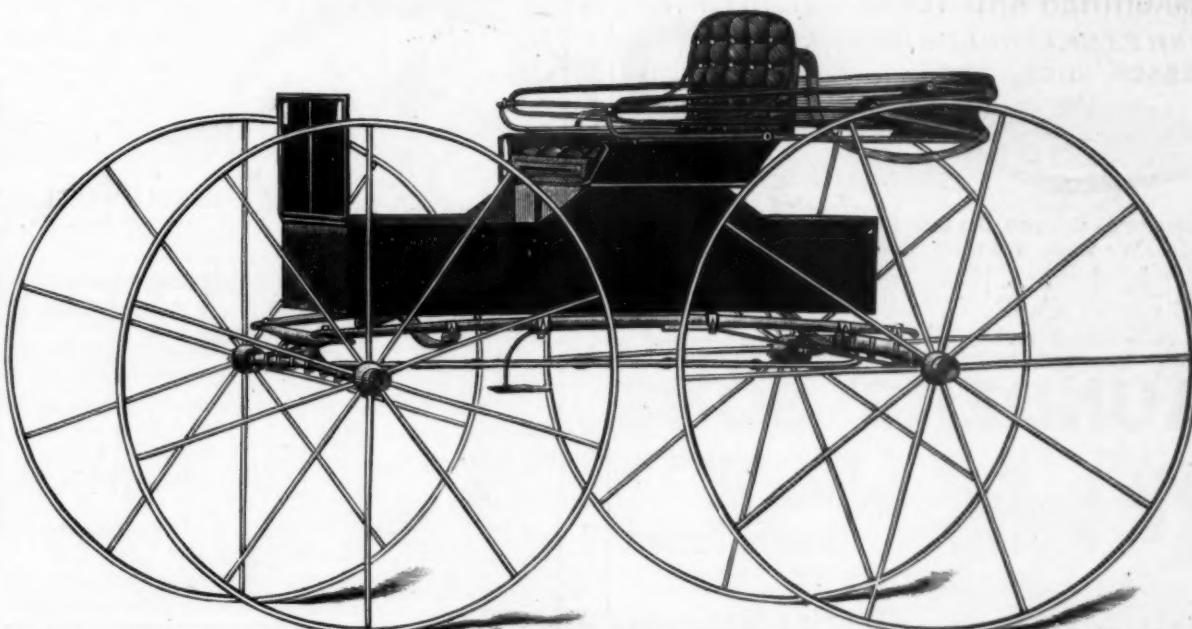
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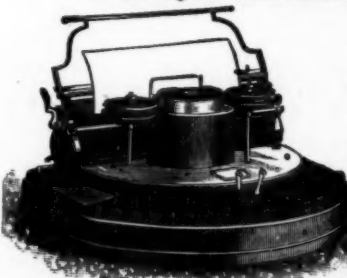
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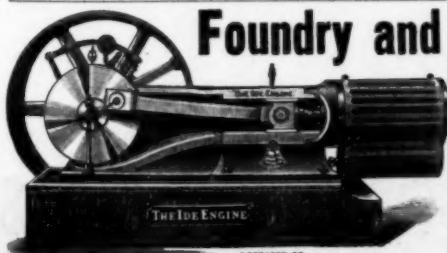
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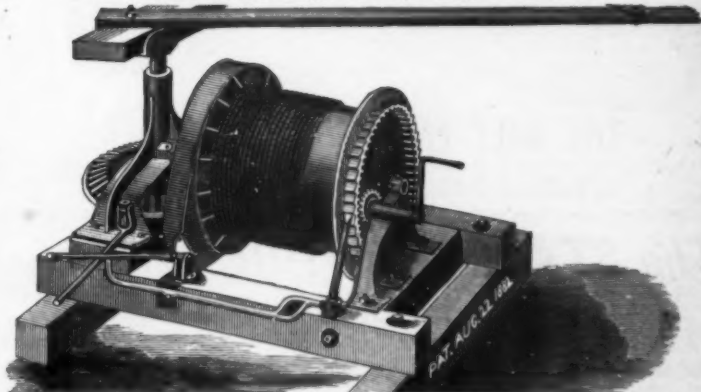
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The illustration represents a Horse-Power Hoisting Winch. It is designed for mining purposes or raising coal or water out of a shaft. It will raise a bucket or weight weighing seven hundred pounds seventy-five feet per minute. The machine is made entirely of iron and steel excepting the stils, and is not affected by dry or wet climates. The hoisting drum is under complete control of the man at the shaft, landing the bucket by operating the levers at hand, and by which means the drum can be thrown in and out of gear at will when the horse is in motion, or the bucket lowered by the brakes as safely and conveniently as by a steam power hoist. No clutches to throw out or in gear. The drum will carry 500 feet or more of 1/4 steel wire rope. The machine is **SMALL, LIGHT, EASILY HANDLED and DURABLE**, sufficiently strong to do the desired work, and so perfectly simple that it can be readily understood by any miner or person inexperienced with machinery. There is a safety attachment on the end of drum in case of an accident, the dog always being in gear when the bucket is being raised. Easily transported; can be made in sections small enough for mule-back transportation if desired.

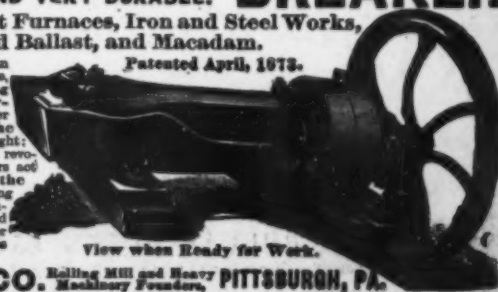
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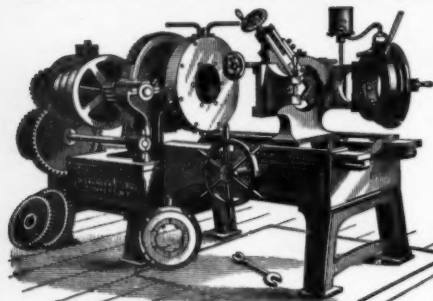
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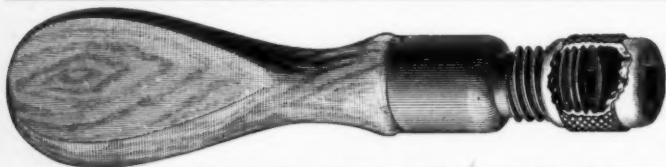
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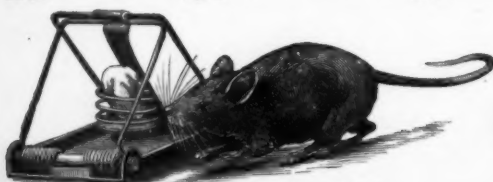
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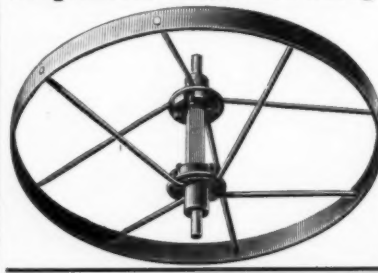


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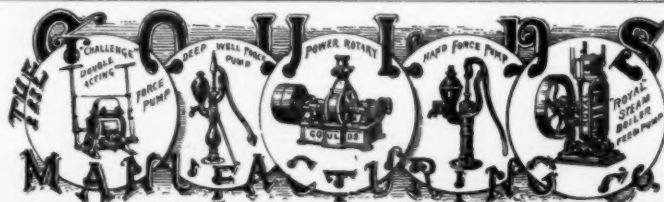
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Zimmerman's, 9 in.....	dis 55

BLIND STAPLES.	
Barbed, 1/4 in. and larger.....	dis 50
Barbed, 1/4 in.....	dis 50

BLOCKS.	
Pearfield Block.....	dis 60 lb. 5
Bagnall & Lood.....	dis 60 lb. 5

BOLTS.	
Cast Iron Barrel Shutter, 1/2 doz.....	dis 70
Cast Iron Chain (Sargent's list).....	dis 65 lb. 5
Wrought Barrel.....	dis 70
Wrought Square.....	dis 70
Wrt. Shutter, all iron, Stanley's list.....	dis 60 lb. 5
Wrt. Shutter, Brass Knob, Stanley's list.....	dis 40 lb. 5
Wrought Shutter, Sargent's list.....	dis 60 lb. 5
Wrought Sunk Flush, Sargent's.....	dis 55 lb. 5
Wrought Sunk Flush, Stanley's.....	dis 55 lb. 5
Wrought B. K. Flush, Stanley's.....	dis 55 lb. 5
Carriage and Tire, Common, new list.....	dis 70
Carriage and Tire, Philadelphia Pattern.....	dis 75
Carriage Bolts, Clarke's.....	dis 70
Norway.....	dis 75 lb. 5
R. B. & W. Carriage (old list).....	dis 70
Tire, American Screw Co's., Phila.....	dis 75 lb. 5
Tire, "Bay State".....	dis 65 lb. 5
Eagle Philadelphia Tire Bolt.....	dis 80
Stove.....	dis 60
Flow.....	dis 60
Machine.....	dis 60
Bolt Ends and Leg Screws.....	dis 70 lb. 5

BOLTS.	
Q. S. Backus.....	dis 50
Barber's.....	dis 50
Spofford's Patent.....	dis 50
Ives' Patent Bolts.....	dis 50
Common Bolt (American).....	dis 50
Amlund's.....	dis 40

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Sweet & Clark upright, 3 1/2 hp.....	dis 300
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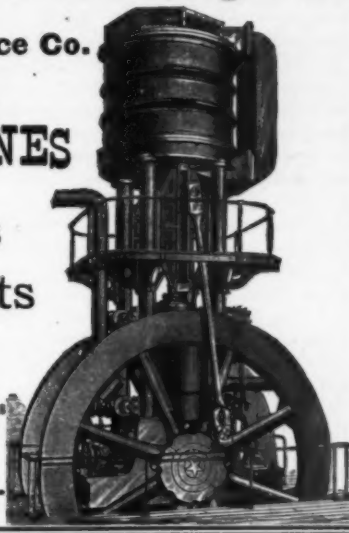
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Shelf, heavy.....	dis 20 lb. 5			
New list.....	dis 20 lb. 5			
Union Nut Co.....	dis 55			
Sargent's.....	dis 60 lb. 5			
Humason, Beckley & Co's.....	dis 70			
Wrought Brass.....	dis 80			
Cast Brass, Fast Joint.....	dis 35 lb. 5			
Cast Brass, Loose Joint.....	dis 35 lb. 5			
Fast Joint, Narrow.....	dis 60 lb. 5			
Fast Joint, Broad.....	dis 60 lb. 5			
Loose Joint, Japanned.....	dis 60 lb. 5			
Loose Joint, Jap, with Acorns.....	dis 60 lb. 5			
Parliament Butts.....	dis 60 lb. 5			
Mayer's Hinges.....	dis 60 lb. 5			
Loose Pin, no Acorns.....	dis 60 lb. 5			
Loose Pin, Acorns.....	dis 60 lb. 5			
Loose Pin, Acorns, Japanned.....	dis 60 lb. 5			
Loose Pin, Acorns, Jap'd, Flated.....	dis 60 lb. 5			
Fast Joint, Narrow.....	dis 70			
Fast Joint, L. Narrow.....	dis 70			
Fast Joint, Broad.....	dis 70			
Loose Joint, Broad.....	dis 70			
Table Butts, Back Flaps, &c.....	dis 70			
Inside Blind, Regular.....	dis 70			
Inside Blind, Light.....	dis 70			
Loose Pin, Wrt.....	dis 70			
Loose Pin, Light.....	dis 70			
Spring Hinges.....	dis 70			
Geor's Spring and Blank Butts.....	dis 70			
Hart Manufacturing Co.....	dis 60 lb. 5			
American Spring Hinge Co's.....	dis 60			
Gem Spring Hinges.....	dis 60			
Humason, Beckley & Co's.....	dis 60			
Sargent & Co's.....	dis 60			
Hochkiss.....	dis 60			
Humason & Beckley Mfg. Co.....	dis 60			
Bradley.....	dis 60			
Beatty's.....	dis 60			
dis 60 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290 300 310 320 330 340 350 360 370 380 390 400 410 420 430 440 450 460 470 480 490 500 510 520 530 540 550 560 570 580 590 600 610 620 630 640 650 660 670 680 690 700 710 720 730 740 750 760 770 780 790 800 810 820 830 840 850 860 870 880 890 900 910 920 930 940 950 960 970 980 990 1000				

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Clark's Patent	dis 20x10	5
Shepardson	dis 20x10	5

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Ives	dis 20x10	5
Douglas	dis 20x10	5

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Wallace's Steel Silver Plated	dis 20x10	5
Rogers Bros 1847	dis 20x10	5
C. Rogers & Bro.	dis 20x10	5

SCREWS.

Standard new list, Feb. 13.		
Flat Head Bright	dis 20x10	5
Round Head Bright	dis 20x10	5
Flat Head Brass	dis 20x10	5
Round Head Brass	dis 20x10	5
Flat Head Blue (add 5¢ to net)	dis 20x10	5
Brass and Silver Capped	dis 20x10	5
Japanese Flat Head	dis 20x10	5
Coach, Patent Gilet Point	dis 20x10	5
Coach, Common or Lag	dis 20x10	5
Red	dis 20x10	5
Machine, Flat Head, Iron	dis 20x10	5
Machine, Round Head, Iron	dis 20x10	5
Bench, Iron	dis 20x10	5
Bench, Wood, Beach	dis 20x10	5
Bench, Wood, Hickory	dis 20x10	5
Hand, Wood	dis 20x10	5
Hand Rail, Sargent's	dis 20x10	5
Hand Rail, Humason	dis 20x10	5
Hand Rail, Am. Screw Co., list Jan. 1, '81	dis 20x10	5
Jack (Wilson's)	dis 20x10	5

SCREEN FRAMES AND FIXTURES.

Standard Window Screens No. 1	dis 20x10	5
Door	dis 20x10	5
Window Corner Irons, No. 3	dis 20x10	5
Door	dis 20x10	5

PORTER'S PATENT WINDOW AND DOOR SCREEN FRAMES.

Door Latches, 1/2 dozen	dis 20x10	5
Porter's Patent Window and Door Screen Frames	dis 20x10	5

FEE BOX, SETS.

No. 20	dis 20x10	5
No. 21	dis 20x10	5
No. 22	dis 20x10	5
No. 23	dis 20x10	5
No. 24	dis 20x10	5

Porter's Corners	dis 20x10	5
No. 1. Corners and Sticks complete for a three-foot window	dis 20x10	5
No. 1. Set for Window	dis 20x10	5

No. 1 1/2	dis 20x10	5
No. 4	dis 20x10	5
No. 3 1/2	dis 20x10	5
No. 4 1/2	dis 20x10	5
No. 5 1/2	dis 20x10	5

No. 3	dis 20x10	5
Boughton's Adjus. Window and Door Screens	dis 20x10	5
Boughton's Adjus. Window and Door Frames	dis 20x10	5
Window screen frames (Stuart's)	dis 20x10	5

American (Cast) Iron	dis 20x10	5
Pruning	dis 20x10	5
Barnard's Lamp Trimmers	dis 20x10	5
Tinners	dis 20x10	5
Massachusetts	dis 20x10	5
Seymour's	dis 20x10	5
Jersey Shears	dis 20x10	5
J. Was & Son, Nickle	dis 20x10	5
Japanned	dis 20x10	5

SHARPENERS AND SCISSORS.		
Sliding Door, M. W. & Co., List	dis 20x10	5
Sliding Door, R. & E. list	dis 20x10	5
Sliding Door, Patent Roller	dis 20x10	5
Sliding Door, Pt. Roller, Hatfield's	dis 20x10	5
Sliding Door, Russell's Anti-Friction	dis 20x10	5
Also see Hangers.		

SHOVELS AND SPADES.		
Ames, New List, November 1, 1885	dis 20x10	5
Griffiths	dis 20x10	5
Remington's (Lowman's Patent)	dis 20x10	5
Rowland's	dis 20x10	5
Lippincott, new list	dis 20x10	5
Hussey, Sims & Co.	dis 20x10	5

SILVER PLATED HOLLOW WARE.		
Wm. Rogers Manf. Co.	dis 20x10	5
Meriden Britannia Co.	dis 20x10	5

SOLDERING IRONS AND COPPERS.		
Cover's Soldering Irons	dis 20x10	5
Cover's Adjustable Coppers	dis 20x10	5

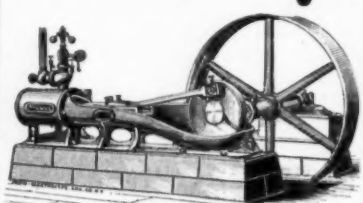
SPOONS.		
Britannia	dis 20x10	5
Tinned, Iron, Table and Tea	dis 20x10	5
Tinned Iron Basting	dis 20x10	5
German Silver	dis 20x10	5

STONE.		
Hindustan No. 1, 4c; Aze, 5c	dis 20x10	5
Sand Stone	dis 20x10	5
Washita Stone	dis 20x10	5
Washita Stone, Slips	dis 20x10	5
Arkansas	dis 20x10	5

SQUARES.		
Steel	dis 20x10	5
Iron	dis 20x10	5
Nickel Plated	dis 20x10	5
Try Square and T Bevels	dis 20x10	5
Winston's Try Square and T Bevels	dis 20x10	5

TACKS, BRADS, &c.		
American Iron Carpet Tacks, all kinds	dis 20x10	5
Steel Carpet Tacks, all kinds	dis 20x10	5
Sweden Iron Carpet Tacks, all kinds	dis 20x10	5
Sweden Iron Tacks	dis 20x10	5
Sweden Iron Upholsterers' Tacks	dis 20x10	5
Tinned Sweden Iron Tacks	dis 20x10	5
Tinned Sweden Iron Upholsterers' Tacks	dis 20x10	5
American Iron Cut Tacks	dis 20x10	5
Gimp and Lace Tacks	dis 20x10	5
Tinned Gimp and Lace Tacks	dis 20x10	5
Copper Tacks	dis 20x10	5
Copper Finishing and Trunk Nails	dis 20x10	5
Cigar Box Nails	dis 20x10	5
Finishing Nails	dis 20x10	5
Trunk and Clout Nails	dis 20x10	5
Tinned Trunk and Clout Nails	dis 20x10	5
Basket Nails	dis 20x10	5
Chair Nails	dis 20x10	5
Zinc Glaciers' Points	dis 20x10	5
Common and Patent Brads	dis 20x10	5
Hungarian Nails and Miners' Tacks	dis 20x10	5
Tinned Capped Trunk Nails	dis 20x10	5

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Garden	dis 20x10	5
Rose's Brick	dis 20x10	5

TRUCKS (WAREHOUSE, &c.)

Handy Truck	dis 20x10	5
Penfield Block Co.'s list, 1885	dis 20x10	5
Peerless, with Cogs, No. 3	dis 20x10	5
Peerless, with Cogs, No. 4	dis 20x10	5
Eureka, No. 2	dis 20x10	5

VISES.

Cheney's Combined Vise and Anvil	dis 20x10	5
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Parker's	dis 20x10	5
Prentiss	dis 20x10	5
Bonney's	dis 20x10	5
Well Wheels	dis 20x10	5
Stephen's Patent Vises	dis 20x10	5

WIRE.

Brass and Copper, list of Jan. 17, 1884	dis 20x10	5
Bright and Annealed	dis 20x10	5
Bright and Annealed	dis 20x10	5
Bright and Annealed	dis 20x10	5
Coppered	dis 20x10	5
Galvanized, Nos. 0 to 18	dis 20x10	5
Tinned, Nos. 0 to 18	dis 20x10	5
Tinned Broom Wire, Nos. 18 to 25	dis 20x10	5
Annealed Fence, Nos. 25 to 35	dis 20x10	5
Annealed Grape, Nos. 10 to 14	dis 20x10	5
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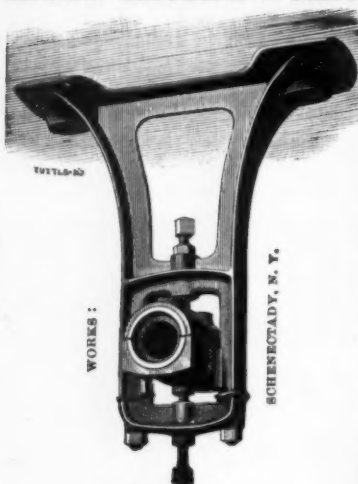
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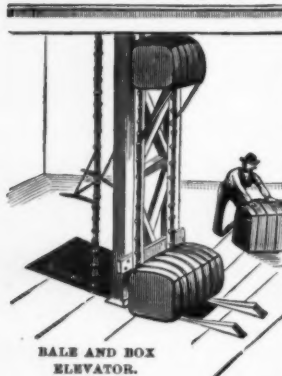
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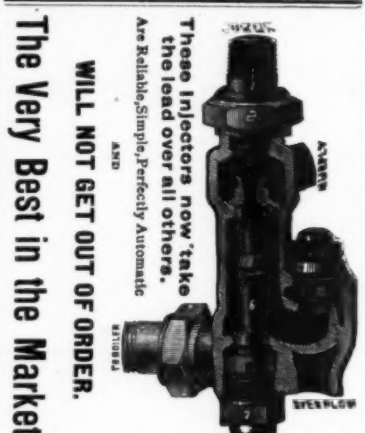
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35 "

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100 "

Fig. 134.

Double Jacket Steam Kettle.

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6 "

10 "

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60 "

80 "

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Fig. 136.

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WITHOUT JOINTS.

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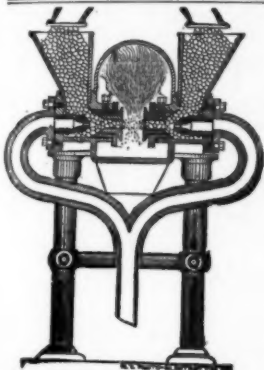
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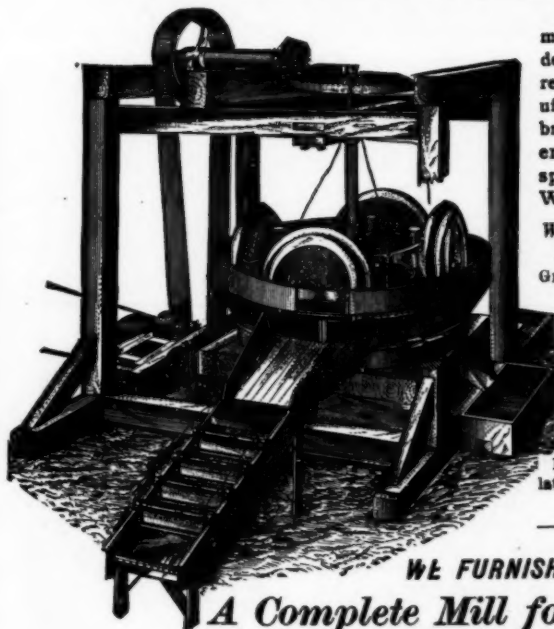


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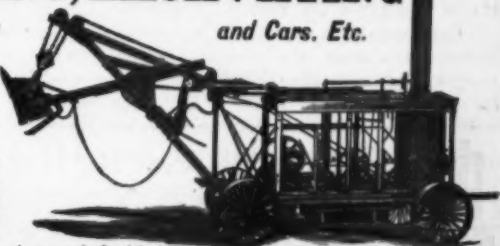
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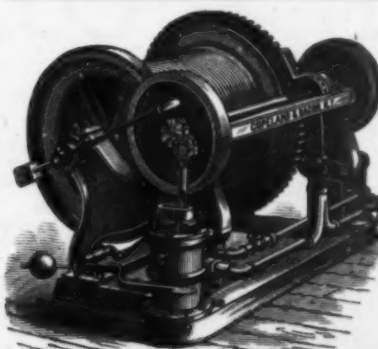
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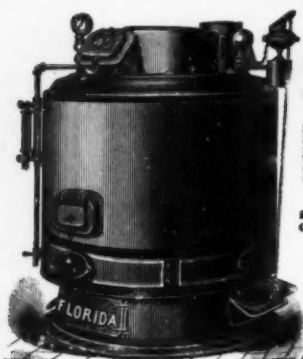
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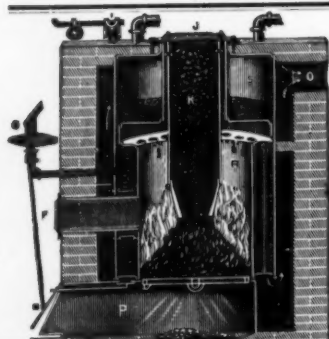
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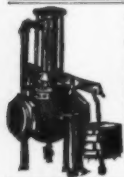
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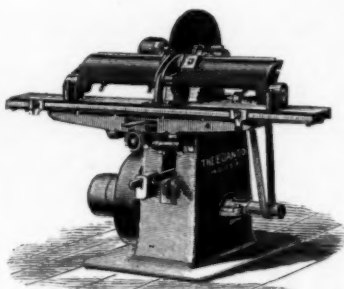
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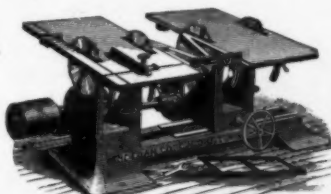
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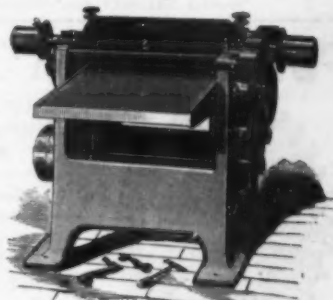
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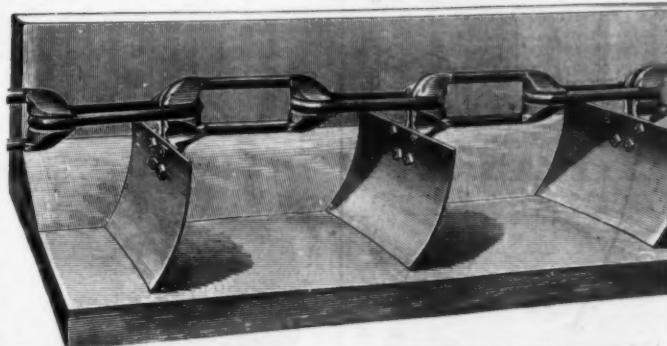
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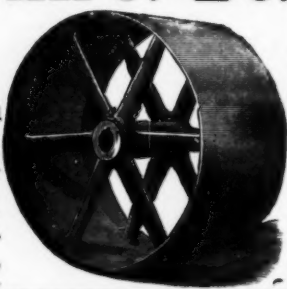
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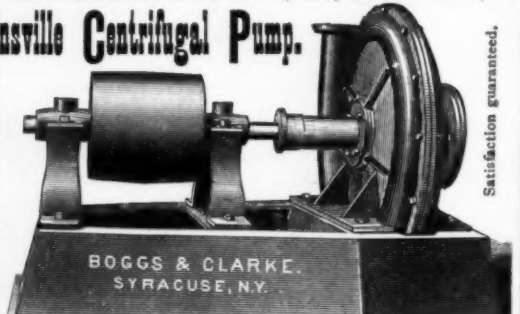
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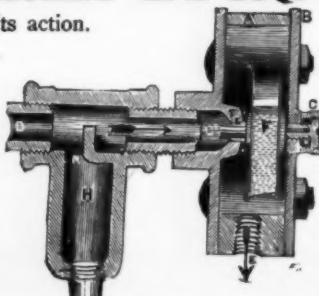
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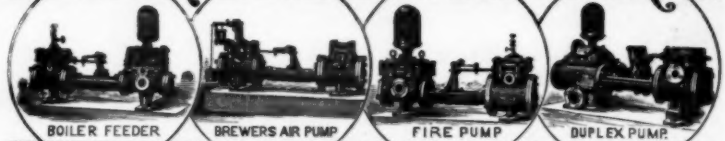
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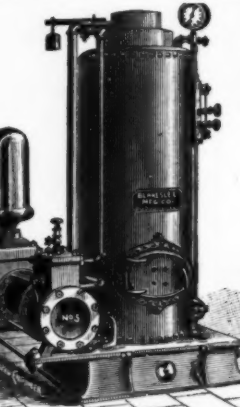
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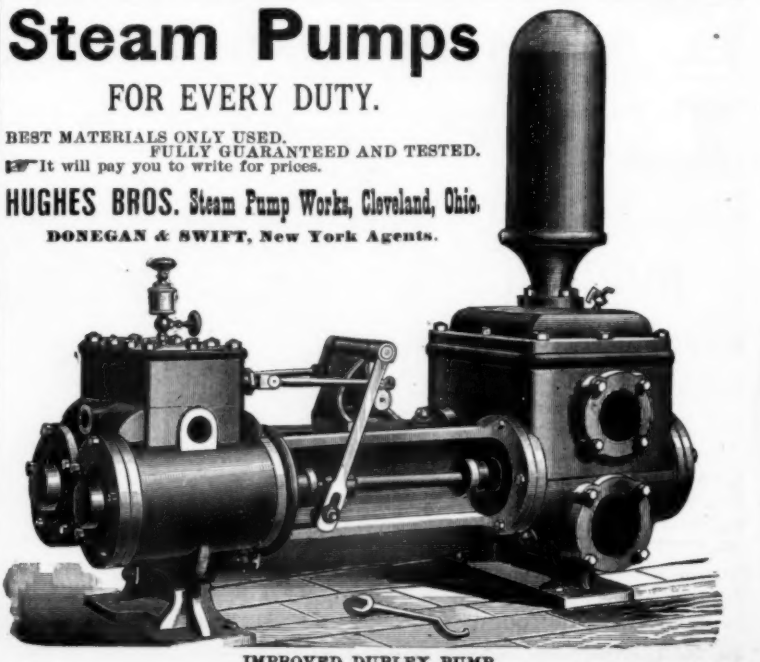
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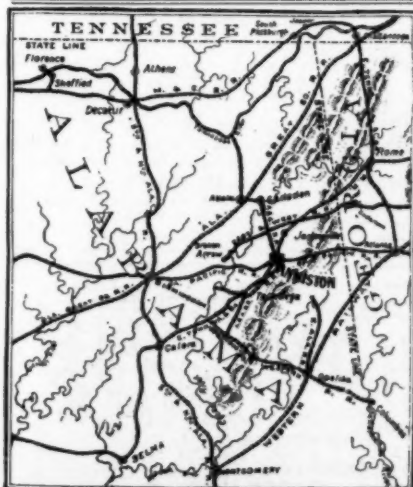
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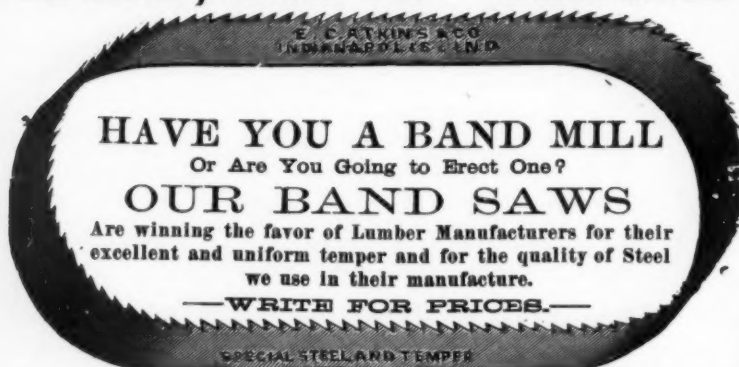
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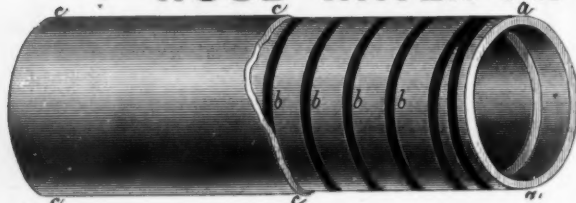
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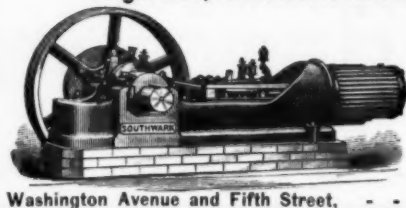
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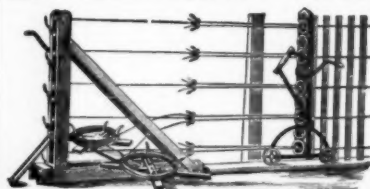
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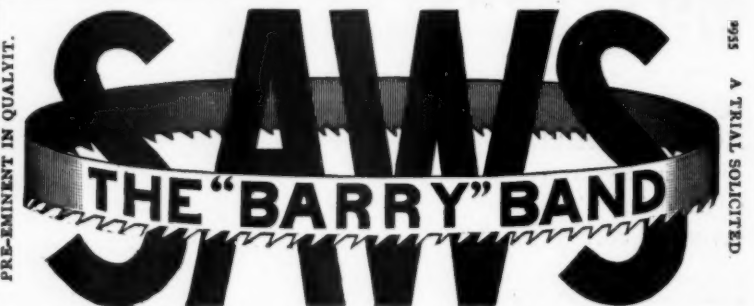
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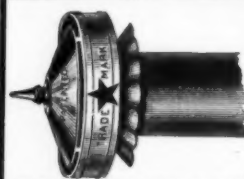
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